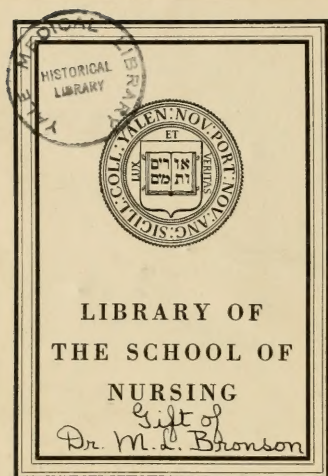
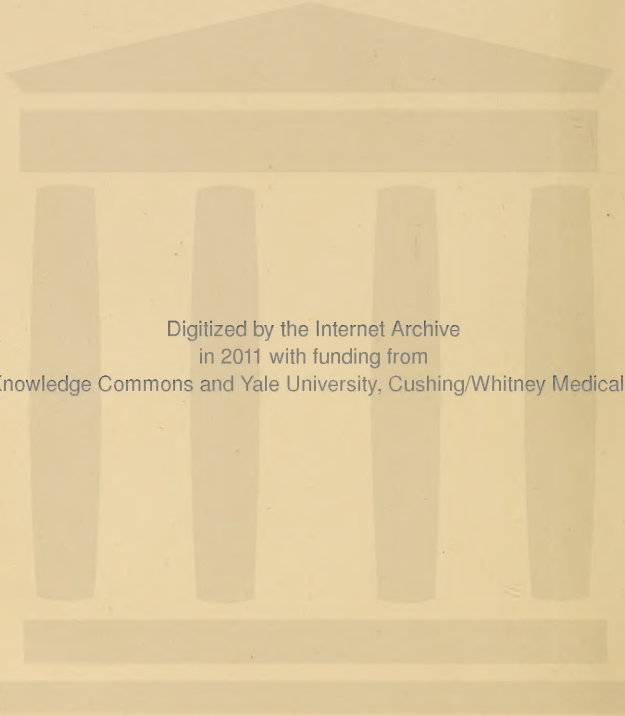




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HOSPITALS AND ASYLUMS
OF
THE WORLD

VOLUME III.

HOSPITALS—HISTORY AND ADMINISTRATION

SELECTED PRESS NOTICES OF VOLUMES I. AND II.

The Times.—‘The work cannot fail to be of the utmost interest to all who are practically concerned with hospitals and asylums. . . . Its value as an exhaustive work of reference is indisputable.’

The Daily Graphic.—‘The first two volumes of the great work upon which Mr. Henry C. Burdett has been so long engaged will be hailed with a hearty welcome as a valuable addition to standard literature. At once solid and popular, the work promises to take a distinct place in the history of philanthropy. Mr. Burdett has had an experience in hospital administration which is practically unrivalled, extending as it does over a quarter of a century.’

Pall Mall Gazette.—‘The work has been a great undertaking, and contains such a mass of information on the subject of which it treats as has never been brought together before. It is certainly a monument of patient and painstaking industry.’

St. James's Gazette.—‘The story, traced with scholarly research and succinctly summarised by Mr. Burdett in the opening chapters of his important work on asylums, throws more light on the history of civilisation than a hundred volumes of wars and dynasties. Mr. Burdett's admirable treatise is a mine of exhaustive and accurate information, alike for the statistician and the lunacy expert.’

British Medical Journal.—‘It has been impossible in this short notice to do justice to the contents of these volumes, which consist of a mass of material of a practical character alike valuable to the architect, the alienist, and the asylum authority. Mr. Burdett has produced a work which is by far the most important and reliable contribution to asylum literature we possess.’

New York Medical Journal.—‘To those interested in hospital construction the name of this author is well and favourably known, and the scope of the present work will be appreciated by everybody when it is learned that the author has been engaged for the past twelve years in preparing and completing the material for publication—material that represents the experience of twenty-five years as a hospital official in various capacities, and as a visitor to the chief institutions in most European countries, to those in several of the British colonies, and to those in the United States.’

Indian Medical Gazette.—‘Speaking generally, we consider these two volumes on the asylums of the world to be a monument of patient research and compilation. The reader will find in them not only statistical and other data of practical value, but also much interesting historic lore.’

The Saturday Review.—‘These two handsome volumes on asylum construction and management do infinite credit to the compiler, the printer, and the publishers. Mr. Burdett's volumes are full of matter which is of the highest interest to everybody.’

The National Observer.—‘There is no want of asylum literature, but by thoroughness and completeness, by the judicious and scientific treatment of a difficult subject, the appearance of these two volumes is amply justified. They present a nearly perfect picture of things as they are; and when their matter becomes antiquated they will still be valuable as a record and a chart of the world's asylums at the end of the nineteenth century.’

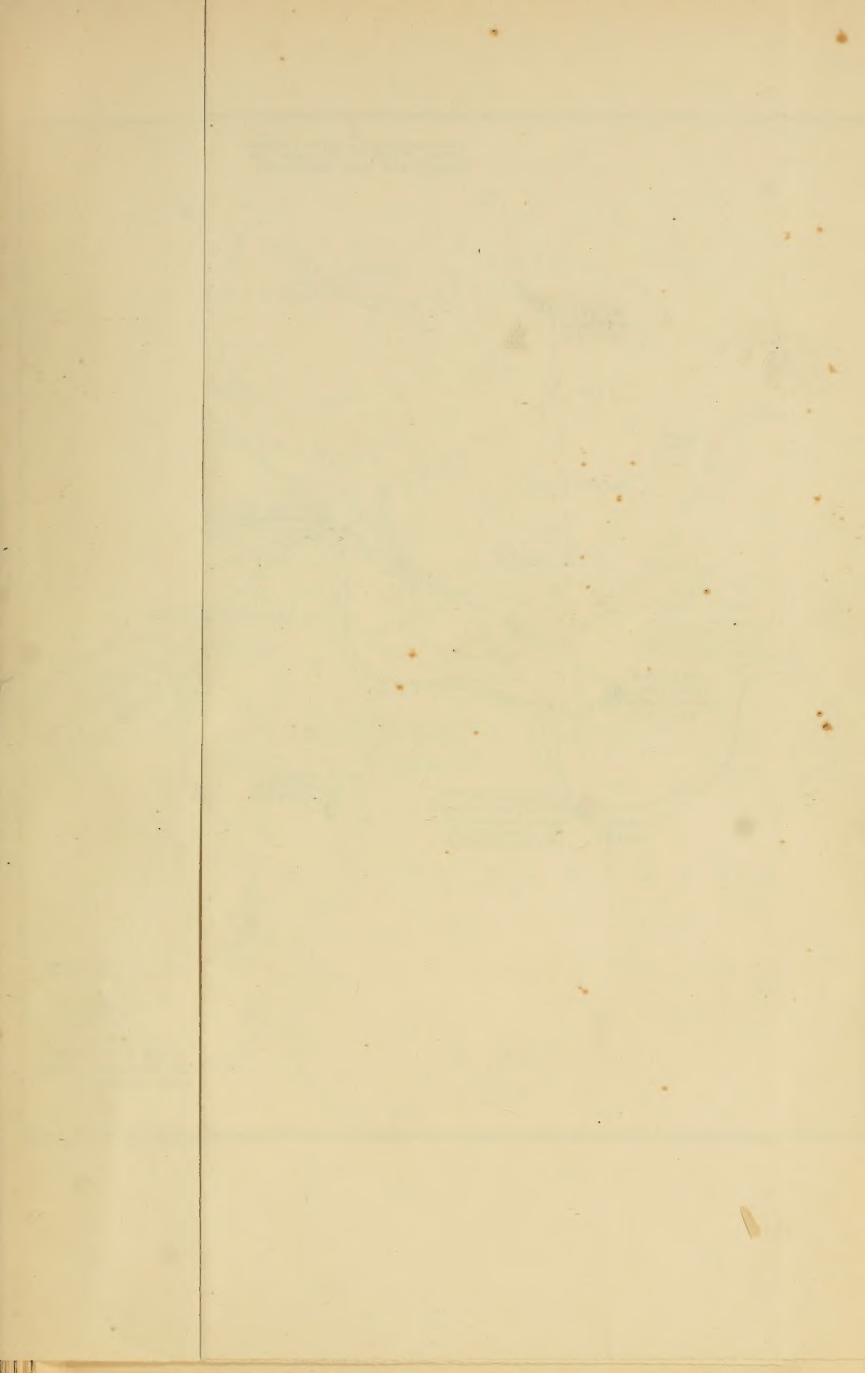
Vanity Fair.—‘No librarian is justified in being without a copy.’

The Edinburgh Scotsman.—‘Mr. Henry C. Burdett's new work upon the hospitals and asylums of the world promises to be the most valuable and far-reaching of the many works upon hospital administration that this busy writer has given to the world.’

Glasgow Herald.—‘We congratulate the author on the termination of his arduous labours, and the eminent success with which he has accomplished this great task of several years' duration.’

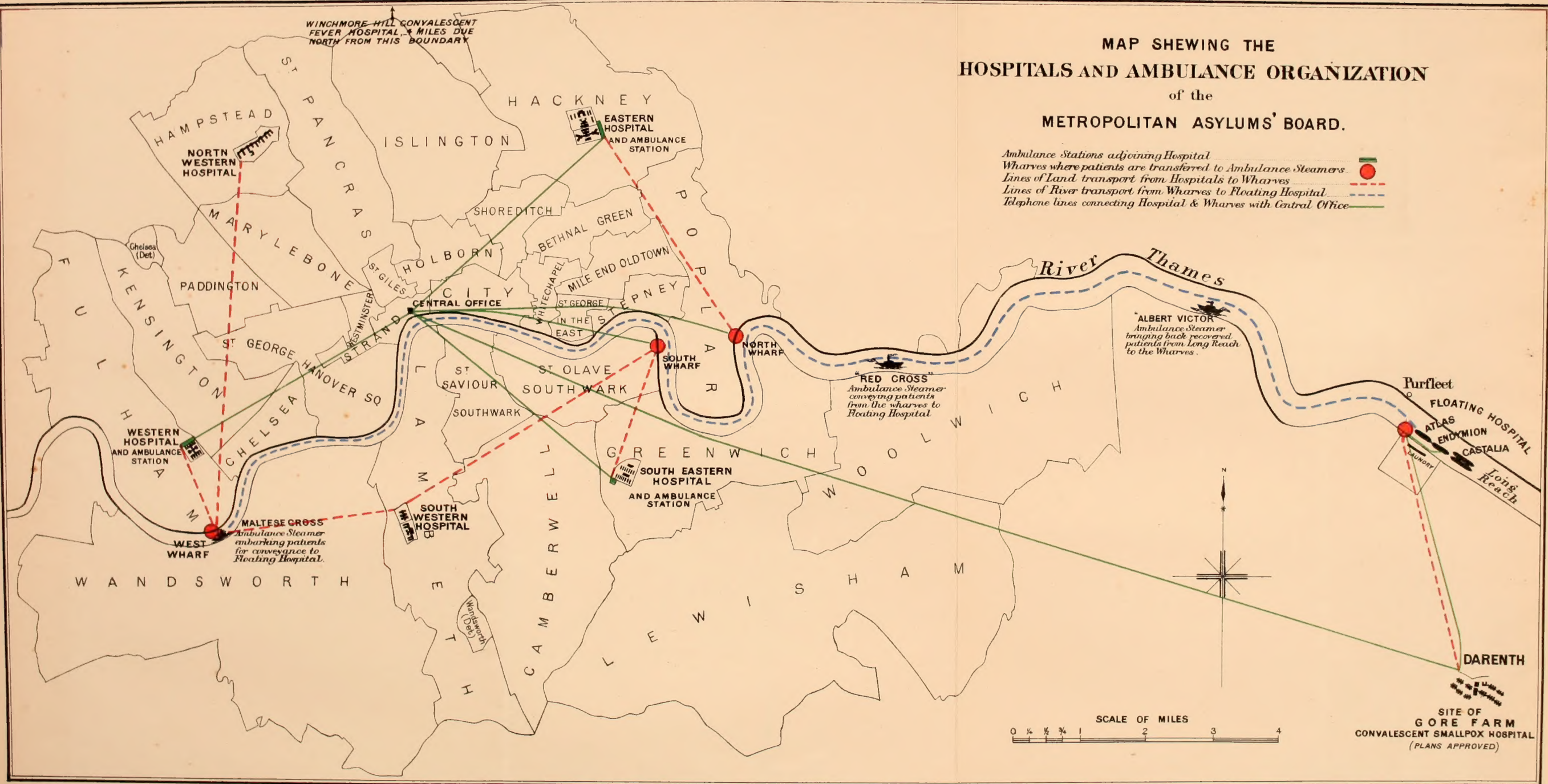
The Builder.—‘We cannot but congratulate the author on the thoroughness with which he has carried out this first portion of what must for years be one of the most comprehensive books of reference on the subject of asylums and hospitals.’

The American Architect and Building News.—‘The name of Mr. Henry C. Burdett is already very familiar to all who interest themselves in hospital construction or management. It might be too much to say that without him the mass of literature relating to hospitals would never have been systematised and reduced into a form available for English readers, but it is, at least, doubtful whether any one else would have done it so well, and no one could have possibly done the work with more zeal and fidelity.’



MAP SHEWING THE HOSPITALS AND AMBULANCE ORGANIZATION of the METROPOLITAN ASYLUMS' BOARD.

Ambulance Stations adjoining Hospital
Wharves where patients are transferred to Ambulance Steamers
Lines of Land transport from Hospitals to Wharves
Lines of River transport from Wharves to Floating Hospital
Telephone lines connecting Hospital & Wharves with Central Office



HOSPITALS AND ASYLUMS

OF

THE WORLD:

*THEIR ORIGIN, HISTORY, CONSTRUCTION, ADMINISTRATION,
MANAGEMENT, AND LEGISLATION;*

WITH PLANS OF THE CHIEF MEDICAL INSTITUTIONS
ACCURATELY DRAWN TO A UNIFORM SCALE,
IN ADDITION TO THOSE OF ALL THE HOSPITALS OF LONDON IN THE
JUBILEE YEAR OF QUEEN VICTORIA'S REIGN.

BY

HENRY C. BURDETT,

FORMERLY SECRETARY AND GENERAL SUPERINTENDENT OF THE QUEEN'S HOSPITAL, BIRMINGHAM, AND
REGISTRAR OF THE MEDICAL SCHOOL; THE "DREADNOUGHT" SEAMEN'S HOSPITAL, GREENWICH;
FOUNDER OF THE HOME HOSPITALS ASSOCIATION FOR PAYING PATIENTS, THE HOSPITALS
ASSOCIATION, AND THE ROYAL NATIONAL PENSION FUND FOR NURSES; AUTHOR OF
"PAY HOSPITALS OF THE WORLD," "HOSPITALS AND THE STATE," "COTTAGE
HOSPITALS: GENERAL, FEVER, AND CONVALESCENT, WITH FIFTY BEDS
AND UNDER," "THE RELATIVE MORTALITY OF LARGE AND SMALL
HOSPITALS," "HELPS TO HEALTH," "BURDETT'S HOSPITAL
ANNUAL AND YEAR BOOK OF PHILANTHROPY";
AND EDITOR OF "THE HOSPITAL."

IN FOUR VOLUMES AND A PORTFOLIO.

VOLUME III.

HOSPITALS—HISTORY AND ADMINISTRATION.

LONDON:

J. & A. CHURCHILL, 11 NEW BURLINGTON STREET W
THE SCIENTIFIC PRESS, STRAND, W.C.

1893.

Erratum.

Page vii, last line, should read as follows:
them in two ways. First, we have again followed our original plan ; secondly,
we have devoted special chapters to

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INTRODUCTION.

WE stated in the Introduction to the first volume, which deals with hospitals for the insane and was issued a year ago, that the author has been engaged in the administration of hospitals and kindred institutions for upwards of twenty-five years. During this period he has gained practical experience in every department of the work by active participation, first as a resident official, then as a medical student, and subsequently as a governor and hospital manager. This close connection with the medical charities and institutions has naturally excited the warmest personal interest in their welfare and efficiency. Visits have been made to the chief institutions of most of the European countries, and of some of the Colonies, and of the United States of America. The author has personally inspected, once at least, nearly every hospital of any importance in the United Kingdom, and in the result has accumulated a mass of information which he has felt might be usefully placed at the disposal of all who are interested in the management of medical institutions throughout the world.

It has been said that difficulties are made for wise men to overcome. There are, however, difficulties *and* difficulties, and a certain pathos must attach at times to the misfortunes of authors engaged in the production of voluminous works exhaustively treating of a great subject.

A year ago arrangements had been made which ought to have ensured the publication of Volumes III. and IV., which deal entirely with hospitals for the sick and kindred institutions, and the portfolio containing many hundreds of plans of the principal hospitals throughout the world. The production of these volumes had been entrusted to an old firm of printers, the excellence of whose work will be proved by a reference to the first two volumes. During the author's absence in the United States this firm found itself in great pecuniary difficulties, which ultimately resulted in bankruptcy. At that time some hundreds of pages of the third volume were in type, and a great number of the plans had been executed. The greater number of the blocks of these plans were, after considerable delay, handed over to the author, but the whole of Volume III. had to be reprinted by another firm.

It is necessary that this statement should be made, seeing that the delay has caused many of the subscribers no little inconvenience, but the author hopes that the explanation here given will be accepted, with the expression of his sincere regret at the unavoidable circumstances which caused the delay. The expense connected with the production of this book had already been heavy, and this *contretemps* has entailed a further expenditure of so large an amount as to be well-nigh ruinous. All authors have sympathised with Carlyle in the loss of his manuscript, and we can declare from personal experience, in circumstances which produced in our case a catastrophe almost as serious, that the burden of reproducing lost copy, representing many years of arduous labour and thought, is greater than can be realised, except by those who have had to experience so great a misfortune.

Some thirteen years have been spent in the preparation of this book. Although the author has had the co-operation and assistance of four Secretaries of State for Foreign Affairs—the Earls of Derby, Granville, Rosebery, and Salisbury—all of whom have made the machinery of the Foreign Office available, as far as possible, and so

have enabled him to secure the co-operation of the British ambassadors and ministers resident in foreign countries ; although the Agents-General, the Crown Agents, and the Governments of all the British Colonies have cheerfully aided in the work ; and although the author cannot adequately express his deep sense of indebtedness to many officials and others who have taken an immense amount of trouble and devoted a large portion of their time to the collection of information and plans, which have proved of the greatest value—still the special difficulties of the undertaking have proved sometimes almost insurmountable. The great number of languages which had to be grappled with made it very difficult to deal clearly with every country, when information was at length forthcoming. It was not an unusual experience to have a mass of printed matter supplied by a foreign Government, which proved on examination to contain very little information of value and to omit most of the special points about which it was desirable to have accurate facts and figures. Of course it has only been possible to make the best use of such matter as was procurable, and it is felt that in some cases the difficulties in the way of the compiler have been so great as to render any attempt at literary style impossible, because the utmost that could be done was to give a *précis* of the available records, which did not always lend themselves to literary treatment.

In the first two volumes the plan pursued was to give a history from the earliest times of the methods of treatment of the insane, to describe the present condition of lunatic asylums in various parts of the world, and then to give a detailed account of the chief institutions and the system of management pursued in all the various countries. In the present volumes, with the view of meeting certain criticisms which have been made on the first two volumes, we have taken a new departure. Hospitals for the sick excite such a general interest in the minds of all classes of the community that we have endeavoured to treat the questions affecting them in two ways. First, we have devoted special chapters to

the subject as a whole. These chapters include a consideration of the various systems of hospital administration; poor-law medical relief; the provisions for the treatment of infectious diseases; questions affecting hospital revenue; questions affecting hospital expenditure and economy; the general arrangements for the commissariat; Hospital Sunday and Saturday Funds; the proportion which hospital beds bear to population in various countries and great cities; questions relating to the treatment of in- and out-patients; the various nursing systems; chronic hospitals; military and naval hospitals; hospitals from a scientific standpoint, including a consideration of the various questions which affect medical education; pay hospitals and convalescent homes; furniture and transport; the after-care and employment of patients; the organisation and bye-laws; hospital housekeeping, &c. &c.

In this way we have endeavoured to bring under review the lessons to be learned from a consideration of the methods pursued in all the countries of the world. With the view of avoiding repetition, we have confined the study of the various questions dealt with to those points, and those points only, which were special or peculiar, as opposed to those which are common to every system. The chapters on hospital revenue and hospital expenditure will be found to contain tables, which show the income and expenditure of a large number of institutions during a period of three years. It may be well to state that the calculations we have made in connection with the income and expenditure of various hospitals, extending over a great number of years, prove, that for practical purposes an average of three years may be taken as revealing the facts, and affording data which may be treated as reliable for purposes of comparison with any subsequent year. In practice, it may be stated with confidence, that during each decade the variations in income and expenditure between one year and another are not generally material. Thus, an average calculation extend-

ing over any period of three years, within a given decade, may be accepted as providing reliable figures for the guidance of all who want this information for special purposes.

It was our original intention to devote a special chapter to legislation. This purpose has not been carried out, because an examination of the data available showed that there was little to be learnt under this head, as the legislation has followed no rule, except in the case of infectious diseases, and here we were able to give all the necessary information in the chapters devoted to this branch of our subject.

The Committee of the House of Lords, which has sat for three years in order to inquire into the administration of the London hospitals, poor-law infirmaries, dispensaries, and kindred institutions, has recently issued a report, which contains a very useful summary of the voluminous evidence taken. The Lords report strongly in favour of the voluntary system of hospital administration, as pursued in England, and whereas they object to certain features in the government of the endowed hospitals, they record their opinion that the voluntary hospitals are on the whole well administered. They bear witness to the immense amount of work done by unpaid boards of managers ; to the care exercised in the appointment of the medical as well as other officers ; and to the remarkable intelligence and grasp displayed by the secretaries who appeared before them. It would fulfil no useful purpose to enter into the personal nursing dispute, which occupied so much of the time of the Committee of the House of Lords, but it is satisfactory to be able to state, that in the opinion of the Committee the charges were, on the whole, not substantiated by the evidence. The government of the endowed hospitals did not commend itself to the approval of the Committee, who recommend that it should be carried on, in future, by a system of weekly boards and special committees. The present system pursued throws too much power and responsibility into the hands of one individual, the treasurer,

though at St. Thomas's Hospital a larger share in the administration is assigned to the committees than at either St. Bartholomew's or Guy's Hospital. It is recommended that the Charity Commissioners should, in future, have power to audit the accounts of the endowed hospitals, and to see that the endowments are applied according to the trusts in each case.

The Lords' Committee further find that the accommodation for convalescents in connection with the larger hospitals is insufficient, and express a hope that more extensive provision may be made by philanthropic effort. The abolition of the out-patient department is not recommended ; but a reorganisation is suggested with the view of rapidly attending to the requirements of the public, and ensuring as far as may be that the charities shall not be abused. The Committee favour the system of limiting the number of out-patients per diem at each hospital, and the institution of inquiries by experienced officials with the view of compelling the patient to establish a *prima facie* case for charitable relief. Free and other dispensaries are urged to take advantage of the out-patient departments as centres for consultative purposes, and small importance is attached to a statement that there has been a reduction in the fees of medical practitioners among the poor by the free work of the hospitals. It is satisfactory to find that the charities are not abused to any serious or appreciable extent, and that it is not proved that patients are carelessly treated, or treated by students instead of by thoroughly qualified medical practitioners. Further hospital accommodation is declared to be necessary in the densely populated district of Camberwell. Poor-law infirmaries should be made available for medical instruction, and medical schools in London are recommended to affiliate themselves to a teaching University with the view of securing first-rate lecturers for all subjects which can be taught in classes, as distinguished from clinical instruction. The charge of abuse is substantiated in regard to some small special hospitals, which the Committee do not consider of any real benefit either to the sick or to science. The multiplication of such institu-

tions is deprecated. The adoption of a uniform system of accounts and the appointment of professional auditors are recommended. Finally, the Lords' Committee favour the establishment of a Central Board which should be representative of all the hospitals, and charged with the following duties : (*a*) examination of the annual reports, accounts, balance sheets, and various returns ; (*b*) the audit of all accounts by competent chartered accountants ; (*c*) the periodical inspection of all the medical charities ; (*d*) the examination of all proposals for new hospitals ; and (*e*) the issue of an annual report dealing with the pecuniary position, the sanitary condition and ventilation, the systems of out-patient treatment, the redistribution and extension, and further provision of hospital and dispensary accommodation, and the nursing systems at hospitals and elsewhere. The Board should further be capable of so organising medical charity as to secure the co-operation of all hospitals, each with one another, and of medical charity with general charity.

The Lords' Committee devote a large amount of space to nursing questions. They think pensions should be provided for nurses, either by the hospital following the example of the London and Guy's by joining the Royal National Pension Fund for Nurses, or by each hospital providing a special pension fund out of its own resources. Although no reference is made to registration in the conclusions of the Lords' Committee, paragraphs 508 to 513 of the Report deal with the proposals of the Royal British Nurses' Association. It is pointed out that although this Association professes to require evidence of character (by the production of recent testimonials) before it will put a nurse on its register, and to register only women who have had three years' hospital training, women are registered who have not completed their full period of training at any one hospital, and of whom it is not known whether they have proved themselves competent or otherwise. Registration is declared to be no protection for the public from mere incompetency. Further, it was admitted that "a woman might have three years'

training at a hospital, and get her certificate, and yet be a very indifferent nurse, and be known at the hospital to be so ; but the public, who read her name in the register, would suppose her to be competent unless the register clearly stated that it did not guarantee the efficiency of its nurses. On the other hand, if the Association disclaims responsibility for the efficiency of the nurses whom it registers, it seems difficult to understand wherein lies the security which it offers to the public."

The minutes of the Lords' Committee show (p. cxcvi of the Third Report issued) that, by six votes to two, the Committee determined that the evidence adduced, voluminous though it was, did not prove that the registration of nurses was desirable, and they consequently declined to recommend the granting of a Charter to the associations seeking it.

The public and the medical profession, as well as the more intelligent of the nurses, feel that there ought to be some official evidence readily available, on reference to which the capacity and qualifications of a particular nurse could be ascertained. This is a very natural feeling, and it is one we are convinced the nurse training schools would be wise to gratify. The nurse training schools alone possess all the necessary information concerning the character and qualifications of the nurses of this country ; they possess all the reports and official documents ; they conduct all the examinations, and they also grant the certificates of qualification. In these circumstances we are strongly of opinion that the nurse training schools should at once appoint an editorial committee to prepare and publish an Official Directory of Trained Nurses for Great Britain and Ireland. This directory would contain the names, qualifications, and certificates of every reputable nurse who has been trained at any public institution in the United Kingdom. It would also further prove a protection to the nurses as well as to the medical profession. If the latter had any cause of complaint against any nurse, they should be invited to make it at once to the matron of the institution where she was trained.

The matter could then be investigated and dealt with under circumstances which would give effectual guarantees to the public and to the profession on the one hand, and to the nurses on the other. No hospital could enter into any such investigation without being impressed with the fact that its interests were largely bound up with the reputation of the nurses whom it had trained, whilst its well-being required that no one should be allowed to practise as a nurse under its auspices unless she was in all respects worthy of confidence.

The Lords' Committee, as well as the nurse training schools, have, after due inquiry, declared that the registration of nurses, as proposed by the Royal British Nurses' Association, will not fulfil the necessary conditions, and therefore ought not to be upheld. On the other hand an Official Directory of Trained Nurses, edited by a committee of the nurse training schools, would at once afford all the information which those most interested in nurses have a right to demand. We hope that such an Official Directory of Trained Nurses will be speedily forthcoming, not only in Great Britain, but in the Colonies, the United States of America, and foreign countries too.

The author has to express his acknowledgments to Dr. John S. Billings, the most eminent authority on the subject, for his invaluable aid in connection with the administration of hospitals of the United States of America ; to Dr. Lutaud of Paris for much assistance in connection with the information given concerning France ; to Mr. A. Pearce Gould, who has elaborated the chapters on medical education ; and to Dr. Lane Notter in connection with the chapter on military and naval hospitals. Sir William Moore has given much time and assistance by placing his experience and knowledge of India and its institutions at the author's disposal. Mr. H. Hall and Mr. Keith D. Young, the eminent architects, who have made hospital construction a special study, have rendered invaluable assistance in the preparation and production of the various plans and illustrations. Mr. Keith D. Young has devoted a great amount

of time to the volume which deals with hospital construction, and without his co-operation and assistance it would have been impossible to make the fourth volume anything like as complete and exhaustive as it will be found to be.

The author has always been greatly impressed with the feeling that by thorough communication and co-operation amongst all who are engaged in the administration of asylums and hospitals, and in the treatment of the inmates of these establishments throughout the world, immeasurable benefits must result to all concerned. This view was held very strongly by him before he commenced to write these volumes. He has been upheld in his opinion by the Report of the Lords' Committee, and as his task has proceeded he has become more and more impressed with the feeling that all should aim at securing the closest intercommunication between the workers and administrators of these institutions throughout all the nations of the earth. If this book tends to bring about this result, then the labour, expense, and time which its preparation has entailed will not have been thrown away.

Finally, the author's grateful thanks are due to Mr. W. W. Armstrong and Miss Pritchard for the zeal and devotion they have displayed in the preparation of the copy for the printer, and in seeing the work through the press. Miss Pritchard's knowledge of languages has been of the greatest assistance, and her special aptitude was shown in a remarkable degree by the circumstance that although she had no knowledge of Spanish, she mastered that language in a very few weeks, and so was able to make readily available a large amount of material which would otherwise have been very difficult to handle. Mr. W. W. Armstrong has long taken a deep interest in hospital matters. He has given up nearly two years to the preparation of the indexes and the passing of the proof sheets through the press. No words of the author can adequately express his sense of indebtedness to Mr. Armstrong and Miss Pritchard, without whose co-operation it would have been well-nigh impossible for him to produce these volumes at all.

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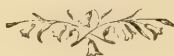
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*Errata.*

Page 301, last line, for "autos de fé" read "autos da fé."

Page 687, sixth line from bottom, should read thus: "During the year 1888, 428 patients were treated in the hospital."



CHAPTER I.

ORIGIN OF HOSPITALS.

INTRODUCTORY.

IT is necessary that we should preface our remarks on the Origin of Hospitals by a brief notice of the rise and progress of medical science from the earliest times. The best history of the origin and progress of physic is given by Boerhaave, a famous physician of Leyden, in his lectures to the students at Leyden University, in the eighteenth century. In a masterly fashion he traces physic from the earliest days to the time when he writes. He says that primitive man was naturally ignorant of the nature of succulent plants, flesh, and garden fruits, and so had to make a trial of all, and by useful experience learn to distinguish the deadly from the wholesome. In this process of education man naturally became subject to disease, the presence of which in the body moved the species to exert a mechanical impulse or unconscious automatic motion for relief. The same kind of automatic endeavours of the body to recover itself is shown to be exercised both by man and by beast. The ejection of poison by vomit and the discharge of foreign bodies by suppuration are cases in point. Thus, the dog devours grass to loosen his intestines and expel their dry and chalky fæces. Nor will he eat any kind of vegetable but his own sort of grass. In the same way, poultry, which live upon solid grain too compact to be easily digested without artificial aid, swallow little stones, which, being rough, perform the office of "teeth in their stomachs." Again, poultry when sick retire into holes, where they pick mortar from the walls "to obtund offending acidity

in their stomachs." The mungoose, an animal of Asia, when bitten by a viper has immediate recourse, it is said, to a plant called "mungos," and in this way was obtained the knowledge of the value of the mungos as an antidote. The properties of hellebore were discovered by the Greek Melampus, who observed its effect upon sheep and goats, whilst phlebotomy became common in consequence of the observed utility of natural hæmorrhage in cases of acute disease. Pain, again, excited the mind, and so induced it to search after and apply alleviating remedies.

From the earliest accounts of history and fable, it appears that the art of physic or healing, for the cure of present and the prevention of future disease, was first cultivated amongst the Chaldeans, Assyrians, Babylonians, and Magi. From these it came into Egypt, Lybia, Cyrenaica, and Crete, and thence it was carried into Greece, where it principally flourished in the peninsula of Cnidus and the islands of Rhodes, Cos, and Epidaurus. Fable leads us to suppose that before the Flood there were a few ancient sages more particularly curious than the rest, who delighted in examining their own and other people's disorders, and who, from their curiosity, made good observation of what usually caused and cured these disorders. The first of these appears to have been one Phœbus, or Solus, who was in reality Horus, King of the Assyrians, who, according to Pliny, was the inventor of a particular medicine. It is probable, however, that the art of healing first took its rise in or near Mesopotamia; for there were the birth and first seat of mankind, and there was fixed the first kingdom which was framed. In that happy and temperate region our long-lived forefathers invented most of the arts. Thence physic passed with astronomy and languages into Phœnicia, and from Phœnicia it might spread into Egypt; but that Egypt did not produce the first cultivators of arts may be inferred from the nature of the country, which was not habitable until it had been made so by the construction of artificial moats and banks. Many ages later we find no more advance in the healing art than that which led one neighbour to help another in case of illness. This was the first method of practising physic.

The Chaldeans were the first colonists who settled in Syria, and their rulers or judges were called Magi, who wove the precepts of their knowledge into verse. Even their kings were not permitted to rule, according to Pliny, unless they had been "learned of the Magi." Among these Magi one of the most considerable

was Zoroaster, whom superstition has ranked among the number of diabolical sorcerers, through a perverted and mistaken sense of the name "magi" or "magicians." This prejudice is akin to that which induced the Romans, hating the seditious and threatening inquiries of astrologers, to expel from Italy all who were distinguished as mathematicians. Length of time has buried in oblivion the learning of the Chaldeans. The vast number of books which contained the learning of the Eastern nations shared the fate of perishing with the regal cities of Nineveh, Babylon, Persepolis, and Alexandria. What now remains to us is but little, and must either be taken from Herodotus or be deduced from conjecture. For the earliest part of their history we have no account beyond what is to be found in the sacred Scriptures. The oldest historian is Moses, who is followed by Joshua and by the authors of the Books of Kings and the Apocrypha. After these come the writings which remain to us of Sanchuniathon, but which to our great trouble are very imperfect. At a long interval from the preceding comes Herodotus, who in turn is followed by Thucydides and Xenophon.

That there were physicians in the East is confirmed by the accounts of David (1 Kings, i, 3, 4, 5) and Asa (2 Chron. xvi, 14). The Egyptians made great advances in physic; for their priests, who were interpreters between the gods and men, and even their kings, approved of the opening of dead bodies to ascertain the cause of death. The priests only were physicians, and kept their sciences as hidden secrets, wrapped and concealed in obscure figures and hieroglyphics. But physic became almost a lost art in the days of Pharaoh Necho and his successors, owing to the conquest of Egypt by the Assyrians and afterwards by the Persians. It is recorded that in the sixth century B.C. the Egyptian physicians failed to reduce the luxated foot of King Darius, the son of Hystaspes, and thereby imperilled their own lives, but that subsequently a cure was effected by Democædes, of the Pythagorean school at Crotona, by the application of mallows.

In the eleventh century B.C. there was a college of physicians in Egypt in receipt of public pay, and regulated by law as to the nature and extent of their practice. This college belonged to the sacerdotal caste, and women practised medicine there. According to Pliny, as the physicians were paid officers of the State they were required to treat the poor gratuitously. These physicians

were not, however, likely to attend the sick in their own homes, or at their private consulting-rooms, except in extreme cases ; and so it is presumed that, as at Athens, so in Egypt, there were official houses to which the poor went at certain times, and which corresponded to the out-patient departments of our hospitals, or, better still, to our dispensaries. It is further on record that Egyptian physicians, though paid by the State, were allowed to receive fees from private patients.

At Athens there were, in the fifth century B.C., physicians elected and paid by the citizens ; there were, according to Pindarus, dispensaries in which the physicians received their patients ; and there were at least two hospitals attached to the Temple of Æsculapius. In the time of Plato some of the Athenian physicians were elected by the people and paid by the Treasury. Socrates speaks of one desiring to obtain a medical appointment from the Government, and there was a technical term applied especially to physicians who had a public salary, the name being δημοσιεύω. These State physicians after election appear to have appointed slave-doctors under them to attend the poor, while they themselves attended to the rich, and, either by their own eloquence or by that of some friendly rhetorician, persuaded the patients to drink the medicine, or submit to the knife or the hot iron. The slave-doctors, on the other hand, had no such scruples, but ran about from one patient to another, and dosed them as they thought proper, or "waited for them in their dispensaries" (ἐν τ. ἰατρείαις). This passage shows that there were at Athens, in the fifth century B.C., dispensaries to which the sick poor repaired for treatment of their diseases by the slave-doctors, who were appointed and paid by the State physicians to look after the ailments of the poor. These dispensaries varied in number, according to the prevalence of diseases, but, whether disease increased or not in the State, these *ιατρεῖα* were frequently being opened.

Coming nearer to the present day, we find that Attalus, King of Pergamus, who died B.C. 197, is said to have made on criminals experiments with poisons.

Pausanias mentions the Temple of Æsculapius at Epidaurus as a kind of medical establishment to which the sick resorted, but apparently with the hope of obtaining divine rather than human aid. It seems that women were not allowed to lie-in there ; nor was there any shelter in which the dying might be received. The grove of the god was not to be polluted by death.

But in the days of Pausanias,* one Antoninus, a man of senatorial rank, raised buildings at Epidaurus—one for the dying and another for women—which may perhaps be regarded as among the first regular hospitals ever erected. Antoninus the Senator also provided a hospital in connection with the Temple of Æsculapius on Tiber Island, Rome.

PRE-CHRISTIAN AND OTHER EARLY HOSPITALS.

Histories are written only on subjects that have attained a certain maturity. Beginnings are small, almost imperceptible, and till a country, a society, or an institution has become not only visible but to some extent important, no man will take the trouble to describe it. Thus the definite history of hospitals does not go beyond a comparatively recent period, and the real beginnings of a now universal system have to be sought for in books dealing mainly with other subjects, wherein, as we have seen, an occasional allusion points to some embryonic hospital of the past, or forces us to infer the existence of one. Such allusions will of necessity be scant and vague, yet their being present at all in works that treat of medicine and religion shows that hospitals had a certain importance, and even the parenthetic nature of the remarks upon them points to their having been things not exceptional, but familiarly known to the writer and to the readers whom he addressed.

In the earliest times religion and medicine—the care and cure of soul and body—went together, and hospitals were the result of the union. The earliest hospitals were the temples of the gods—the deified Æsculapius and others—whose favour gave and whose displeasure robbed of health, and “the divine art of healing” was a gift of the gods (Cicero, *Tusc. Dis.*, iii, 1; Pliny, *Nat. Hist.*, xxix, 1). The sick in the earliest times made pilgrimages to these shrines, presented offerings, and put themselves under the care of the priests attached to the cult, in whom was supposed to be vested some of the power of the deity. Nor was the supposition wholly wrong. The deity whom these priests served was in some cases the physician of a past age, canonised by a grateful posterity—a saintship, for which we nowadays substitute a baronetcy; while in others it was a myth around whose name some wise man had

* A.D. 170. Antoninus appears not to have been a Christian, for he built temples to Hygieia, Æsculapius, and Apollo. (*Corinthiacæ*, lib. ii, p. 135.)

clustered all that he and his fellows knew of medicine and surgery at the time. Æsculapius is a prominent example of the first class of deities, among whom may also be set Charaka, the author to whom is attributed the earliest work on medicine in Hindostan (published not later than 300 B.C.). The method of Charaka's work is the Platonic, the scholars asking the sage questions on all matters both of medicine and metaphysics. *Susruta*, an Indian work of scarcely inferior antiquity, belongs to the other class. The account given of its origin is that Susruta and six companions, moved by the suffering of men, sought out and found Brahma, who told them how to cure the various diseases that afflicted the human race. The knowledge thus gained was revealed only to a particular class, who thereby became not only priests, but physicians, surgeons, and nurses to the sick. (T. A. Wise, M.D., *Review of the History of Medicine*.)

Æsculapius was fabled to have been the son of Apollo. In Homer's time there was no temple service in his honour. Later, however, the holy places became the seat of the rites of "incubation." Remedies which experience had found to be efficient were written on tablets or graven upon pillars in the temples, and served to lay the foundation of written systems. But in connection with this cult were the Asclepiads, who were lay doctors, and who were quite distinct from the priests, being met with in places where there were no Asclepia or shrines of the healing deity. The gymnasts, who were also possessed of medical knowledge, do not appear in connection with establishments of any kind.

On the walls of the temples of Greece—Eos and Cos—were suspended white tablets, narrating the cures there effected. These display a strange medley of rational medical treatment and superstitious belief in the power of charms and incantations, and show the mystic power of the priests declining before the increasing skill of the physician. These records, though scanty and imperfect, showed the diseases from which the pilgrims who sought the shrines had suffered. They became a sort of clinical record to which teachers and students referred, and which was studied by those professional visitors who, even in those days, "walked the hospitals." The "walks" were longer then than now. Hippocrates spent twelve years in travel when pursuing his medical studies, and penetrated as far as Hindostan, where medical science was then more advanced than in either Greece or Egypt. One of the rules enjoined on the Hindu students was the constant habit

of visiting the sick, and seeing them treated by experienced persons—that is, clinical study, which could scarcely be obtained without that collection of the sick in one spot which is fundamentally a hospital; and the operations which the Hindu surgeons of those days successfully performed—Cæsarian section, embryotomy, and laparotomy—could scarcely have been learned under circumstances less favourably adapted for study than those afforded by medical practice. (T. A. Wise, M.D.) Throughout the ages this combination of worship and medical practice went on. By the side of the shrine of Salerno, for example, there flourished its great medical school; it is almost certain that visitors to the first could simultaneously consult the skilled doctors belonging to the second.

In Hippocrates himself—"The Father of Medicine," as he has been called—we find the spirit which characterises our modern hospitals. In the oath by which he bound himself to his profession there is the declaration that he would all his life visit the sick and give them his advice *gratis*—a resolution which would certainly bring him a large practice, resembling not a little the outpatient department of a hospital; and, indeed, Pindarus tells us of houses in Athens, officially chosen, where the sick poor repaired at fixed times—in fact, dispensaries. We meet also with one allusion to a hospital. This institution is mentioned by the comic poet Crates, who lived about the middle of the fourth century B.C., and it was probably situated in the Piræus (Meineke, *Frag. Com. Græc.* ii.). Earlier than this, however, in the fifth century B.C., there existed, as we have already mentioned, physicians, chosen and paid by the citizens who had a right to their services.

In Egypt the germ of a hospital system may be found in the appointment of medical officers, who were paid by the State, and attended to the sick poor. The first establishment of these officers dates from times of which we have no accurate knowledge; but in the eleventh century B.C. we hear of a college of physicians supported by the State, which regulated the nature and extent of their practice. That medical science had attained a high degree of perfection in Egypt may be inferred from the fact that there were specialists in different branches of the art, and each physician was allowed to practise only his own branch. The Egyptians had oculists and dentists, the latter of whom were skilful enough to be able to stop teeth with gold, as the Theban mummies show. Moreover, one of their kings—Athothis, son and successor to Menes,

the first king of Egypt—wrote a treatise on anatomy. (Manetho, quoted by Brugsch in his *Histoire d'Égypte*). At what period medical science in Egypt emancipated itself from superstition is uncertain; but a medical papyrus, now at Berlin, which dates from the fourteenth century B.C., contains a copy of a treatise on inflammation (*Onchet*) which, the papyrus states, was found written in "ancient writing" rolled up in a coffer, under the feet of Anubis, in the town of Sokhem, in the time of his sacred majesty Thot the Righteous. After the death of this monarch it was handed to King Snat on account of its importance. It was then copied and restored to its place under the feet of the statue, and sealed up by the sacred scribe and wise chief of the physicians. (F. Chabas, *La Médecine des Anciens Égyptiens*.)

In India, King Asoka, who reigned in the third century B.C., published an edict commanding the establishment of hospitals throughout his dominions. Monarchs and their advisers seldom invent—they systematise; and it is more than probable that King Asoka's edict was meant to improve rather than to initiate a hospital system. The king's edicts are still extant, for they are engraven in the living rock in Gujerat, not far from the town of Surat; and there is also a legend that, grieved at seeing how often people died from diseases that could easily be cured, Asoka established dispensaries at the four gates of his royal city of Patna. (Spiers, *Ancient India*, p. 319.) The royal fashion spread, and in the year 399 A.D., six hundred years after Asoka died, a Chinese traveller, Fa-Hian, visited India, and found there hospitals, which in all essentials resembled our modern institutions. He says in his *Travels*: "The nobles and landowners of this country have founded hospitals in the city, to which the poor of all countries, the destitute, the cripples, the diseased, may repair for shelter. They receive every kind of requisite help gratuitously. Physicians inspect their diseases, and, according to their cases, order them food and drink, decoctions or medicines, everything, in fact, that may contribute to their ease. When cured they depart at their own convenience." (Fa-Hian's *Travels from China to India*—Beal's translation, p. 107.)

Of Asoka's hospitals, one, and one only, existed at the commencement of the present century. Hospitals for the poor and sick had entirely disappeared at the time of the British occupation of India, as will be shown later on. The last remaining of Asoka's hospitals was, strange to say, devoted to the treatment of animals.

It covered twenty-five acres, and was divided into proper wards and courts for the accommodation of the patients. When an animal was sick or injured, its master had only to bring it to this hospital, where it was received and tended without regard to the caste of its owner; and where, if necessary, it found an asylum in old age. So careful were the doctors there of the patients, that a traveller reports their purchasing bread and milk for two animals which could not crop grass. (Hamilton's *East India Gazetteer*.)

In Rome, which so largely imitated the civilisation of Greece, we find the Athenian custom of having public physicians in every city. The number of these in each centre was proportionate to the number of the inhabitants, and they received salaries from the public treasury.

This, however, is not the only indication of a charitable care for the sick among the Romans. Tacitus, speaking of the fall of an amphitheatre at Fidenæ, by which 50,000 people were killed or injured, says: "During the fresh pang of this calamity the doors of the grandees were thrown open, medicines were everywhere supplied and administered by proper hands; and at that juncture the city, though of sorrowful aspect, seemed to have recalled the public spirit of the ancient Romans, who, after great battles, constantly relieved the wounded, sustained them by liberality, and restored them with care." (*Annales*, iv, 63.) This accident took place about 27 A.D., but the words of Tacitus indicate that it was only the revival of a custom of a time sufficiently ancient to be regretfully looked back upon as the good old days—probably to the early days of the republic, before Rome had overthrown the rival states, when battles on Italian soil were more frequent than under the sway of the emperors.

It should be noted, also, that the luxurious public baths erected under the empire were primarily intended for the poor. They were free to all. The subsequent abuse of them by the rich and pleasure-loving belonged to the general corruption of society which thwarted and misapplied the original charity. The Temple of Æsculapius, situated on an island in the Tiber, was, according to the practice of classic times, also a hospital and one to which certain privileges attached; for the Emperor Claudius promulgated a law which ordained that slaves whose masters abandoned them in the Island of Æsculapius should be held free if they recovered from their illness. (*Blackwood's Magazine*, vol. 1, p. 130, "Origin of Hospitals for the Sick.")

As the Christian religion assumed importance and became paramount in the State the hospital system extended throughout the Roman empire on lines at once more methodical and more distinctly charitable than before. Hospitals for the sick early became an integral part of society institutions. We learn that about the year 258 A.D., Laurentius, chief of the deacons, assembled a great number of poor and sick, who were supported by the alms of the Church. We cannot be sure, however, that this assemblage enjoyed medical treatment as well as alms ; but it is a fact that, in the year 380 A.D., a regular hospital was founded by Fabiola, a Roman matron of distinguished piety. She instituted, St. Jerome informs us, a *nosocomium*, which he defines as “a house in the country for the reception of those unhappily sick and infirm persons who were before scattered among the places of public resort, where they would be furnished in a regular manner with nourishment and those medicines of which they might stand in need.” This establishment was situated at some distance from the city, in a healthy part of the country. (*Epistles of Jerome*, 77, c. vi.) The fame of this institution spread, we are told, throughout the Roman empire, “from the Egyptians and Parthians to the cities of Britain.”

Another hospital was built by St. Basil, outside the walls of Cæsarea in Cappadocia, founded probably on the site of an earlier hospital. (*Epistle 94—ad Heliam.*) This edifice was so large that St. Gregory Nazianzen says it “rose to view like a second city, the abode of charity, the treasury into which the rich poured of their wealth and the poor of their poverty. Here disease was investigated and sympathy proved.” (*Oration 20.*)

When St. John Chrysostom went to Constantinople, he found there at least one hospital, and built many others on the plan of the Basileas at Cæsarea. There must have been a considerable number of hospitals in Alexandria about this time, for a law of the Emperor Honorius mentions no fewer than six hundred nurses, who were placed at the disposal of the bishop for the purpose of nursing the sick. These nurses bore the name of *parabolani*, which originally signified nurses in infectious diseases, the title signifying those who *cast themselves* into danger of death with a divine recklessness. (*Code of Justinian*, I, § 18.)

To the great hospital at Cæsarea was attached a “house of separation” for lepers, a class who, from the earliest times, received a certain amount of care in isolated buildings and communities—more, perhaps, for the sake of protecting their fellow-citizens from

this horrible disease than out of charitable care for the sufferers themselves. The pariahs of ancient society, they often suffered neglect and cruelty ; they were driven from all assemblies of men, tracked and hunted as if they had been wild beasts, and were forbidden even to quench their thirst at the wells where others drank. It was Basil who taught the thoughtless of mankind not to scorn men, nor to dishonour Christ the Head of all, by inhumanity to their fellows. (A. Tollemer, *Des Origines de la Charité Catholique*.)

Any mention of leprosy brings to mind the Jews, who, as a nation, suffered greatly from it. It is unnecessary to mention the miracles wrought by our Lord in the cure of leprosy ; the connection of that disease with the Hebrew nation goes farther back than the Christian era. The Egyptian account—Manetho's—of the Exodus is that the Hebrews were banished from the land because they had defiled it with their leprosy. Leprosy became identified with the Jews, in their own eyes as well as in their neighbours' ; for, expressing the humble condition of the Messiah, the question asked in the *Talmud*, "What is the name of the Messiah ?" has for answer "The Leper." This identification of the Saviour with the disease that afflicted His people made its way into the Christian legends ; and it is related that St. Francis d'Assisi, dismounting from his horse to succour a leper, found that the leper was Christ. Moreover, the Vulgate translation of Isaiah liii, 4 is, "Nos putavimus eum quasi leprosum." The Jewish lepers were required to "show themselves to the priest" at stated intervals—a command which implies a certain supposed knowledge of medicine on the part of those officials. In the later history of the Jewish nation we find reference made to regular physicians attached to the Temple and to the synagogues, and appointed to these posts by popular election ; so it is evident that the two functions had become separated.

This disease could not be kept away from even the highest in the land, and we hear of King Uzziah, when "the leprosy mounted to his forehead," retiring to a "several house." This is supposed by Ewald, Gesenius, and other scholars to have been a house of isolation in some degree corresponding to the leper-hospitals of after-days. This is the only institution of the kind mentioned in Scripture ; but it does not follow that it was the only one in existence. It is more probable that these isolated abodes were to be found outside almost all cities then, as in later times, especially in the Middle Ages, after Basil's example had taught men to

pity, and not to hate, the unfortunate creatures whose sufferings needed no aggravation from the harshness of their fellow-men.

How numerous were these leper-colonies of old it is needless to say. All over Europe we find traces of them. The village of Liberton, near Edinburgh, for example, shows by its name that it was once the "Leper-town" of the Scotch metropolis; and in York there is still shown, in the wall of an old church, the opening around which the lepers were permitted to congregate, in order that they might be present at public worship without contaminating their more fortunate brethren. A leper peep-hole of this kind, with the ruins of an outer chapel or building, is also shown to this day at the parish church of Christchurch, Hampshire. The practice must, therefore, have been common and general.

The pilgrimages which Christians, from very early times, made to the sacred places of the Holy Land helped the spread of the hospital system. Constantine, when he removed the seat of the empire to Byzantium, built there a *hospitium* for strangers and pilgrims; and, in 550 A.D., the Emperor Justinian built at Jerusalem that hospital of St. John which became the cradle of the warlike Knights of Rhodes and Malta, whose original function—which they forgot, and we have forgotten—was to tend the sick pilgrims, and afterwards to nurse back to health the wounded crusaders.

This hospital of St. John might be looked upon as the earliest military hospital; but we have evidence that long before the Cross became a sacred symbol such an institution was in existence. In 300 B.C. the Palace of Emania was founded in Ireland by the Princess Macha "of the golden hair," and continued to be the chief royal residence in Ulster till it was destroyed in 332 A.D. To this were attached two houses, in one of which the Red Branch Knights hung up their arms and trophies, while in the other the sick were cared for and the wounded healed. The latter bore the name of "Broin Bearg"—the House of Sorrow. (Sir W. Wilde, *Note on Census for Ireland*, part iii; *Parliamentary Papers*, 1854, vol. 68.) This example of the princess was widely followed throughout Ireland, and the ancient laws of that country sanctioned the providing for the sick "a physician, food, proper bed, furniture and a proper house." (*Sanchus Mor*, p. 123.)

Among the Romans the first military hospital we hear of was established in the time of Hadrian. It was in connection with the army that hospitals which must certainly be regarded as such sprang up. In the year 90 A.D. Agathines, a Lacedemonian, opened

a school of medicine in the imperial city, and about the same time institutions termed *valetudinaria* and *veterinaria* were in active operation for the treatment of infirm soldiers and their horses. They were attached to the legionary camp during war as an indispensable feature, and replaced the tent where up till then the sick or wounded warrior had been brought. If the army changed its quarters the patient was transported to, and laid in, some neighbouring cottage. Treatment appears to have been principally surgical in character. These *valetudinaria* were attached to the winter quarters of the soldiery, and praise was given to those generals who visited the sick and wounded. (Dumas, *Des Secours publics*.) The Emperor Tiberius, both before and after his accession to the purple, was especially solicitous for his soldiers, and added to their conveniences ambulances for their easier transport, and baths for their comfort.

Army-surgeons there had been long before then. Homer speaks of them as forming part of the Greek force in the Trojan war; and Plato praised the Asclepiadæ of that time as being "heroes as well as physicians; for, when the arrow of Pandarus wounded Menelaus, they sucked the blood out of his wound, and sprinkled soothing remedies." (*Republic*, iii, 406.) We learn from Diodorus (i, 82) that in Egypt the State physicians were attached to the army in time of war, and were then forbidden to take fees. The surgeon has his place in those works of primitive art which tell the glory of Egypt. Edwards, in *A Thousand Miles up the Nile*, p. 438, states that, "in the smaller temple of Abu Simbel, in Nubia, a surgeon is seen dressing a wound in the foot of a soldier." Cyrus had surgeons attached to his army; so had even the pain-despising Spartans.

Military hospitals existed not only in the eastern hemisphere, but among the ancient Mexicans, whose strange and elaborate civilisation Europeans have as yet done more to destroy than to replace. They had hospitals in their principal cities "for the cure of the sick, and for the permanent refuge of disabled soldiers." Over these hospitals were placed surgeons, who, says a grumbling chronicler—Torquemada—"were so far better than those of Europe that they did not protract the cure in order to increase the pay." (Prescott, *History of the Conquest of Mexico*, book i, ch. 2.) Bancroft, in his *Native Races of the Pacific States of North America*, affirms (vol. ii, p. 596 *et seq.*) that in all the larger Mexican cities there were hospitals amply endowed, and attended by experienced physicians,

surgeons, and nurses ; that the Mexicans had studied and practised medicine from ancient times ; that they possessed botanic gardens, and suitable places and arrangements for dissection ; that all their midwives were women ; and that female doctors were common among them.

Medical women were to be found elsewhere, also, in ancient days—even in the comparatively unknown kingdom of Siam. Here still exists the oldest hospital for women of which we have any knowledge. It is in Bankok, the capital of Siam. The inhabitants of this ancient and populous city live for the most part in houses built upon rafts floating on the river Meinam ; and all the physicians of the Court, both male and female, are compelled to give their services gratuitously to each of the hospitals that may require them. (Hamilton's *Hindustan*, vol. i.)

From the collection of poems entitled *Shah Namah*, which deals with the ancient history of Persia, we learn that the fire-worshippers had hospitals from the earliest times—an evidence of humanity which we cannot think strange in the followers of Zoroaster. The traditional stories of the tenderness of Buddha also make it natural that his followers should, as we know they have done, establish hospitals ; and we read in Turnour's translation of the books of the southern Buddhists that " Buddha appointed a physician for every ten villages on the high-road, and built asylums for the crippled, the deformed, and the destitute. His son Upatisso built hospitals for cripples, for women, and for the blind and diseased ; and Dhatusend built hospitals for cripples and for the sick."

These facts, gleaned from many sources, indicate that hospitals, though now almost identified with the Christian religion, are the outcome of the innate tenderness that marks all noble souls, in whatever land they dwell and in whatever creed they are received. But, before proceeding to the consideration of the hospitals of mediæval times, it may be worth while to mention hospitals that were built for no other reason than enmity to Christ. The Emperor Julian (the Apostate) perceiving that, as he put it, " these impious Galileans give themselves to this kind of humanity," ordered Arsacius to " establish abundance of hospitals in every city, that our kindness may be enjoyed by strangers, not only of our own people, but of those who are in need." Thus he thought to emulate and surpass the Christians.

The Arabian power did not arise until after the Christian era, and the famous but later hospitals which we owe to the Arabs will

be found described in the account given of that country on another page.

Having thus given a general summary of the origin of hospitals, it may not be uninteresting to endeavour to bring together such details as we have been able to collect concerning the earliest hospital systems in the principal countries of the world, however crude and imperfect they may have been. This is done in the hope that a fuller light may be thrown upon the gradual development of a system of medical relief which has now grown to such dimensions that it threatens to overwhelm the people in many countries by causing them to regard as a right the charity which modern medical institutions afford, and thus to sow the earliest seeds of pauperism in races which have heretofore, to their own great advantage, shown a manly independence.





CHAPTER II.

THE EARLIEST HOSPITAL SYSTEMS.

EGYPT.



THE history of medicine, as we have already shown, reaches back to the remotest antiquities, where it loses itself in myth and fable. An Egyptian monarch, some 4,000 years before Christ, is said to have written a work upon anatomy ; in China, 2,000 years before our era, another work was penned ; and in India, with the earliest Brahmin traditions are mingled accounts of the order of physicians and the science of curing disease. So important was the profession of the healing art accounted in India that the first physician was fabled to have been formed from the foam of the sea. The Egyptians also held that their first physician was a god : and the Greek *Æsculapius*, who had a temple in Epidaurus 1200 B.C., was declared to have been a son of *Apollo*. Coincident, therefore, with the establishment of the earliest civilisation, and the spread of the earliest religion, was the foundation of medical art. The pagan Pantheon always had its medical representative, and the priests of the pagan temples were the doctors of these ancient nations. There is still extant, after the lapse of ages, sufficient material from which to build the system of medicine in vogue in Egypt and India thousands of years ago. Prescriptions have come down to us just as they were used to heal a disease of the eyes or a bloody flux. But, passing from therapeutics and *materia medica* to treatment, and asking what place hospitals and asylums occupied in these remote ages, the inquirer is met with difficulties which must be obvious, but which must not be allowed

to warp his judgment in estimating the position which such institutions held in the economy of the times. In the most ancient records, mention of hospitals, or what may be regarded as hospitals, is rare, but not so rare as to excuse the mistakes of those who have affirmed that hospitals were unknown before our era. Because the records of these institutions are not easily found, are we entitled to rest satisfied in the belief that hospitals must have been as few and far between as are the references to them in ancient papers and manuscripts? Every reasonable inquirer will ask himself, after reviewing the manuscripts before him, and gathering together his facts, how far it is likely that hospitals should be specifically mentioned in these documents; and, further, he must decide how far he is entitled to go in either affirming or denying their existence upon this evidence. But while allowing room for hesitation in accepting the sweeping statements of some, who with Pinel declare that there were asylums in the temples of Saturn in ancient Egypt—asylums distinctly set apart for the use of the insane—there can be no question whatever that in Egypt, from the dawn of civilisation, there were medical schools in connection with the temples, that the priests were the depositaries of medical knowledge, and that the sick and infirm came to the temples to consult the priests, or to sleep beneath some healing shrine, so that the god might come to them in their dreams, and tell them how they might be cured. This rite of “incubation,” to which we will refer in greater detail later on, passed from Egypt to Greece, as did, in fact, the entire healing art.

That in the very earliest times, some 4,000 years before the birth of Christ, there were temples of Saturn in existence, is clear. Moreover, already in the year 4157 B.C., Athothis, son of Menes, is said to have penned a work upon anatomy. One may fairly infer that something of the nature of a medical school must have been established, and that it was conducted by the priests in connection with the temples; and it is no unreasonable inference to draw that patients congregated there, and that a mass of scientific material was under observation. Subsequently, however, in one of those strange revulsions of religious sentiment, which more than once swept over the land of the Pharaohs, these temples were destroyed, and, with a fanaticism equal to their former devotion the priests and people proceeded to erase the very name of Saturn from every monument and inscription in the country. It becomes, therefore, a hopeless task, in view of this well-attested historical fact, to expect

to find any record of those ancient schools, and, indeed, when Saturn was included in the later Pantheon of Egypt, it was as a deity of the second and subordinate rank who no longer had temples in his honour or had religious worship paid to him. The Egyptian god of medicine was Tosorthris.

There is no Egyptologist more erudite than Professor Georg Ebers, of Leipzig, and he is especially qualified to give an opinion upon this topic, from the fact that he is in possession of the Papyrus Ebers, a document composed certainly about 1550–1547 B.C., and more complete in its medical information than any other—than even the Papyrus Harris, or the Papyrus of Berlin. On being appealed to in this matter, he writes as follows :—

“That the ancients, Greeks as well as Egyptians, were in the habit of laying the sick in the temple is known to everyone. In Egypt this was done especially in the temples of Serapis, in the large Serapeum of Alexandria, in the renowned Serapeum of Canopus, near Alexandria, and at Memphis. At the time of Alexander it appears to have been very customary to bring the sick into the temples. It was in the temple of Serapis that, when Alexander was sick, several friends of his laid themselves down to sleep, if they might perchance learn from the deity whether they should bring the suffering monarch into the temple or not. The voice of the god made reply that they had better not bring him into the temple.

“Ancient Egyptian inscriptions and papyri have little to say about the treatment of the sick in hospitals and temples, but there is no doubt that with the temple of Heliopolis at least a medical clinic was united. At Sais, also, as is well known, there was a medical faculty. In the important handbook of Egyptian medicine, named after myself, the Papyrus Ebers—it contains a collection of prescriptions for the most various maladies—the Heliopolis clinic is stated to have been situate in a building, mentioned elsewhere as well, which was called the Great Hall of Heliopolis. In this papyrus the story runs that the two brothers Horus and Seth, in their enmity, wounded each other in battle—Seth wounded Horus in the eye, Horus Seth in the testicle—and that they were then brought to this clinic of Heliopolis so that counsel might be taken about the injury done to Seth, and that Horus should again become whole as he had been upon the earth. Isis is the healing goddess who plays the chief part in their restoration, and as the Neith of Sais was the goddess named, under whose auspices medical writings

came into existence and medical men practised their art, what is here stated of the goddess has reference also to the course of treatment to which patients were submitted in the great hall of the temple of Heliopolis. The chief priest of Heliopolis was called the Urme, and he was probably also the head of the medical faculty. An Urme called Chuy is named in the Papyrus Ebers as the compounder of a renowned eye-ointment. The chief priest also of Sais, as the Vatican Naophorus of the time of Cambyses teaches us, was called Ursaunen, meaning the great or head doctor, and must have been the president of the medical faculty there. Schools were connected with most Egyptian temples; and with many of the latter, certainly with those of Heliopolis and Sais, there were medical clinics, which, it would appear, passed over unchanged to the Arabs, who erected, in connection with their mosques, schools and hospitals in just the same way as did the ancient Egyptians. There were, of course, xenodochia, ptochotrophia, gerontocomia, and nosocomia in Alexandria no less than elsewhere in early Christian times."

The ancient Egyptian shrines, which were certainly seats of medical knowledge and instruction, where the sick went to consult the deity who answered them in their dreams, and which appear to have served as hospitals, if not as asylums, have been excavated with splendid results, by persevering scholars. The great temple of Dendara has been uncovered, its long series of rooms, and halls, and vaults examined, and the inscriptions written over the doors, deciphered. The very dimensions of the chambers are given. Over one doorway stands the inscription "Laboratory," and over an adjacent apartment, "Place for the preparations of the Superintendent of the Laboratory." Over another stand the words "Birth-house," but whether that was a sick-room, or whether it suggests that a lying-in institution in some form or other may have there been in existence some fifteen centuries before Christ, it is hard to say. In Egypt the temples of Thebes and Memphis are stated also to have served for the reception of the sick. The Books of Hermes, which were works on medicine, as, indeed, all other writings upon the same subject, were stored in the temples. Patients coming to these institutions desirous of being cured of their complaints paid contributions to the priests.

THE RITE OF INCUBATION.

The word "incubation" to which reference has been made, and the Latin phrase "incubare Deo," merit some elucidation. Antecedent even to these remote centuries was a period before medical art was in existence, when the sick were laid in the path of passers-by, who should from their own personal experience give them advice as to how to be cured. This was done in Egypt. It was done in Babylon, as a well-known passage of Herodotus informs us, which says that the sick were laid in the public squares, so that any passer-by who had suffered from the same disease, and who had found a cure, might tell them of it. There was even a law in Babylon making it incumbent upon strangers to do this. It was a custom in Assyria also, where for long centuries no other medical resource was known except an appeal to the incantations of the priests. From the East it spread to the West, and was practised by the Lusitanians and Iberians. How far it was the habit among the Jews and in Rome has remained a debated point. Certain episodes in the life of Christ, as when the woman touched the hem of his garment, recall the custom, but are scarcely sufficient to prove its existence. Others have relied upon the line of Virgil—

"Ille, ut depositi proferret fata parentis"

as convincing evidence of the same fact. They quote also this passage of Suetonius about Tiberius Nero Cæsar in the same sense :—"Forte quodam in disponendo die mane prædixerat, quicquid ægrorum in civitate esset, visitare se velle : id a proximis aliter exceptum est ; jussique sunt omnes ægri in publicam porticum deferri, ac per valetudinum genera disponi. Percussus igitur inopinata re diu quid ageret incertus tandem singulos circuit ; excusans factum etiam tenuissimo cuique et ignoto."

But these passages are not enough, nor the one in Virgil which runs as follows—

‘ Jamque aderat Phœbo ante alios dilectus lapis
Iasides : acri quondam cui captus amore,
Ipse suas artes, sua munera, lætus Apollo
Augurium citharamque dabat celeresque sagittas.
Ille, ut depositi proferret fata parentis,
Scire potestates herbarum usumque medendi
Maluit, et mutas agitare inglorius artes.”

Thus, then, the sick in the most ancient times were placed in the public ways ; it remains next to point out how they consulted the priests and took refuge in the temples. That the ancients used to lie down in these edifices to consult the oracles, to learn of healing remedies and the causes of their diseases, is well attested historically. Hence originated the expression "incubare Deo ;" "incubare satius te fuerat Jovi." (Plautus, *Curcul.*, Act II, Scene ii, 16.)

The most famous temples in Greece were those of Æsculapius, at Cos and Tricca, but there were many others, as at Epidaurus, Rhodes, Cnidus, and Pergamus, more or less used with the same object. Thus Aristophanes, in his comedy *Plutus*, makes the hero, who has been stricken with blindness by Jupiter, repair to the temple of Æsculapius, with the result that Plutus recovers his sight.

Passing from Greece to Rome, as we have passed from Egypt to Greece, there was the shrine of Æsculapius on the island of the Tiber, and Bartholomæus Martianus goes so far as to maintain that there was a hospital in connection therewith erected near the temple. Plautus has it in *Curcul.*, Act I, Scene i, 61, 62 :—

"hic leno ægrotus incubat
In Æsculapii fano."

And in Act II, Scene i—

"Migrare certu'st jam nunc e fano foras,
Quando Æsculapi ita sentio sententiam,
Ut qui me nihili faciat, nec salvum velit.
Valetudo decrescit, accrescit labor.
Nam jam, quasi zona, liene cinctus ambulo.
Geminos in ventre habere videor filios.
Nihil metuo, nisi ne medius dirumpar miser."

And again in Act II, Scene ii—

"Hac nocte in somnis visus sum viderier,
Procul sedere longe a me Æsculapium,
Neque eum ad me adire, neque me magni pendere
Visu'st."

Similar facts hold of the temples of Serapis, Pluto, Juno, and the Cave of Charon.

Enough has been said to explain the meaning of this rite ; nor is this the place to enlarge upon the preparatory period of fasting

from food and drink imposed upon suppliants, or to dwell upon the rich offerings to the shrine which they were subsequently in the habit of making.

ALEXANDRIA, THE CALIPHS OF BAGDAD AND THE FOLLOWERS OF MAHOMET.

The importance of Alexandria as a medical centre has already been pointed out. When the dominions of Alexander the Great were divided, Egypt fell to the Ptolemies. These monarchs not only perpetuated the sacerdotal institutions of Thebes, Memphis, and Hieropolis, but founded the Alexandrian gymnasium, libraries, and museums. The Serapeum and Museum were institutions which had large libraries in connection with them ; and the latter had also a kind of out-patient room. These schools long retained their pre-eminence, and it was sufficient for a physician to say that he came from Alexandria to secure him a ready reception. Dioscorides and Serapion, two physicians, were the envoys of the elder Ptolemy to Rome. Zeno had been trained at Alexandria, and Aetius, the Byzantine physician, 502–575 A.D., came from the same seat of learning. In 640 A.D. Alexandria fell under the dominion of the Arabians.

The religions of the past gave place in the East to the doctrines of Mahomet, and in the West to Christianity. The disciples of these two faiths met in conflict in Palestine, about Vienna, and in Spain ; but it was probably only in the latter country that this contact had much bearing upon the present subject. There were Christian hospitals in Palestine long before the irruption of the infidels, and there were asylums for the insane in Bagdad a thousand years almost before they became a feature of European civilisation. Damascus, the early capital of the Caliphs, had a hospital in the seventh century, and a pilgrim for Mecca was so enchanted with its comforts that he wished to stay there. Damascus was displaced by Bagdad, a town which under Haroun-al-Raschid reached the acme of its splendour. That famous Caliph was born in 763 or 766 A.D., and ruled from 786–809 A.D. He was the fifth of the Abbaside line. He attached to every mosque a college, and to every college a hospital. There were Arab schools in the following towns : Bagdad, Damascus, Samarkand, Alexandria, Cordova, Seville, Toledo, Almeria, Murcia, Tunis, Fez, and many others. In Bagdad, under Haroun, in the eighth century, there was in existence a great

system of public infirmaries for rendering gratuitous relief to the sick and diseased ; but, above all, there was an asylum for insane patients brought from every part of the Caliphate. The Arabs called it *Dal almeraphitan*. The patients were submitted to skilled medical treatment until they were in a condition to return to their homes, and even then they received further attendance, to prevent a relapse of their disease. In the time of Benjamin, the Hebrew traveller, 1173 A.D., a most efficient scheme had long been in existence for receiving the sick and infirm poor into the hospitals. There were no fewer than sixty salaried physicians on the staff, with command of an ample supply of all pharmaceutical remedies.

The Moors entered Spain in 711 A.D., and for seven centuries their civilisation, like their sway, was predominant in the Peninsula. Spanish towns which possessed Mohammedan hospitals have been already indicated ; it remains now to add some details.

It has been pointed out in connection with a hospital in Durham for sick girls only, founded in 1059 A.D., that there were at a much earlier period similar institutions under the Moors in Spain. There were infirmaries for the poor and indigent in that country in the year 976 A.D. In Cordova, under the Emperor Hixem, and through his personal intervention, hospitals and orphanages were submitted to most excellent regulations, just as were the public schools and colleges throughout his dominions. This benevolent monarch was himself often found visiting the infirmaries and hospitals, examining into the condition of the diseased and the sick, to whom he directed the special attention of the Imperial physicians. Gewar established a board of skilled surgeons to determine the qualifications of those who wished to practise their profession in the various municipal and rural departments, or desired to act upon the staff of the hospitals in the Mohammedan dominions.

The most eminent men of science were chosen by a Moorish king for service about his person, though not infrequently they were Christians. Great attention was also given to the strict regulation of the hospital service and colleges of students throughout the provinces both of Spain and Africa.

Khans or caravansaries for the accommodation of travellers, hospitals, and other charitable institutions adorn every Mussulman city. Howard tells us that the asylums of the Turks were admirably constructed, though their tenure was neglected. There have long been hospitals for the sick in Constantinople. Most imperial mosques have such institutions in connection with them, but the

largest are those of Sultan Bayezid, Sultan Selim, and Sultan Suleyman. There are also to be mentioned the mosques Kasseki Djamy, Tschmili Djamy, Mihrmah Sultane, Djamasi et Kilidj-Aly-Pacha-Djamisi, and Selimie at Scutari. These are perhaps more of the nature of refuges, where the sick, laid on sofas, find needed nourishment, than hospitals properly so called, for medical treatment is very imperfect.

Under the Sultan Selim there were schools at the arsenal, including a medical school. There were barracks also at Scutari, Topkhana, Pera, and Levent-Tchiftlik, all having hospitals, and the first two having European doctors and well-furnished dispensaries. They were, however, destroyed during the excesses of the Janisaries in 1808.

INDIA AND BUDDHIST COUNTRIES.

We have already sufficiently shown that it is not correct to say, as many reputable authorities do, that hospitals were the result of Christian philanthropy, and that they were unknown during pagan times. Throughout all that vast region of the East which accepted the system of Buddha—a region extending even to America, if, as scholars have guessed, the civilisation of the Aztecs was of Asiatic origin*—there were hospitals based upon precepts of benevolence and charity only less sublime than those of Jesus of Nazareth.

Medicine was known to the Hindoo Brahmins soon after that ancient Aryan stock descended into the plains of Hindostan. It may be that this knowledge was Egyptian in origin; that is at least more likely than that it passed from the valley of the Ganges to that of the Nile.

Siva and Dhanwantara were the gods of medicine in ancient India, and among the fourteen precious objects which those deities framed by churning the ocean was a skilled physician. Already, in 1400 B.C., there existed a system of medicine contained in the Ayur-Veda. The medical caste was named the Vaidya, but there were, besides, teachers and practitioners called Rishis who lectured to students and attended upon the sick.

It was in 600–500 B.C. that Buddhism arose in India in revolt

* There is evidence in existence which shows that America was known to Chinese navigators centuries before the day of Columbus, and even before the expeditions of the Danes and Norsemen.

against the material worship and intolerant claims of the Brahmins, and in time it became the prevailing religion. This consummation was reached about 260 B.C., in the time of the great Emperor Asoka. His coronation can be fixed with absolute certainty within a year or two of 267 B.C. It was he who founded the many hospitals which flourished in every part of Hindostan, and were copied in all the adjacent countries. They were hospitals in our modern sense of the word, something more than the hospices which the Brahmins had erected for the accommodation and entertainment of travellers. The second edict of Asoka, which commanded the foundation of these institutions, runs thus in the translation of Prinsep: "Everywhere within the conquered provinces of Raja Piyadasi, the beloved of the gods, as well as in the parts occupied by the faithful, such as Chola, Pida Satiyaputra, and Ketalaputra, and even as far as Tambapanni (Ceylon), and moreover within the dominions of Antiochus the Greek (of which Antiochus's generals are the rulers), everywhere the heaven-beloved Raja Piyadasi's double system of medical aid is established; both medical aid for men and medical aid for animals, together with medicaments of all sorts which are suitable for men and suitable for animals. And wherever there is not (such provision) in all such places there are to be prepared and to be planted both root drugs and herbs where-soever there is not (a provision of them), in all such places shall they be deposited and planted." The edict is to be seen upon the rocks of Dhauli and Girinar, the former in Cattac, the latter in Gujerat. These strange hospitals were long maintained by the Buddhists. There were three or four in Amandabad in 1772, and the famous one at Surat, often described by European travellers and considered to be the direct outcome of this edict, is still in existence. It was supported by a charge of one anna per cent. on the rupee of the merchant's clear gain, to which were added fines for certain venial offences. The revenue in 1770 amounted to more than 600*l.* annually.

Generally, it remains to point out, that these hospitals were provided with every variety of instrument and medicine consisting of mineral and vegetable drugs, roots, and fruits; that in South Behar the numerous establishments of the nature of caravansaries had medicine houses in connection with them; that Banians and Jains were very common in Western India; that the poor and orphans, the lame and sick repaired to them, and received all that was necessary for their wants; and that physicians instructed in the ancient

Hindoo medical sciences examined into the patients' symptoms and treated their complaints. For India itself the confirmation of all these facts is contained in perfectly independent records.

The Mandarins of China regard as the founder of medicine Hoang-ti, author of Nuy-kin, to whom the date 2706 B.C. is assigned. Moreover, their chroniclers tell us that in 1122 B.C. smallpox was recognised among them as a disease. Nevertheless, it is believed that the science was not regularly introduced into China until 229 A.D. by one Chung-ke, for the works previously published between 1105 B.C. and 189 B.C. dealt only with the theory of medicine, without giving definite prescriptions. When Buddhism had won its way in China, certain Buddhist disciples journeyed to India, the cradle of their faith, in search of Buddhist books of discipline. The records left by two of these pilgrims are especially valuable.

Fa-Hian was a Chinese monk who travelled in India and Ceylon during the years 399-413 A.D. The following is a translation of a passage from his history. On arriving at Patna, which had once been the capital of Asoka, he found—

“A great festival on the eighth day of the moon, when people repaired thither from all the provinces, and the delegates whom the chiefs of the kingdom maintain in the town have each established there a medicine house of happiness and virtue. The poor, the orphans, the lame, in short all the sick of the provinces repair to these houses, where they receive all that is necessary for their wants. Physicians examine their complaints, they are supplied with meat and drink according to expedience, and medicines are administered to them. Everything contributes to sooth them. Those that are cured go away of themselves.”

Hiuen-tsiang was another Chinese pilgrim who passed the years 629-645 A.D. among western countries, principally in India. In the course of his narrative he details, one by one, the kingdoms and cities he came to, and makes the following mention of hospitals: “In the kingdom of Tchêka (the Punjaub around Lahore) few believe in Buddha, most in the spirits of heaven. There are a multitude of Houses of Benevolence (*pounyaçâlâs*) where they succour the poor and unfortunate. Sometimes medicines are distributed, sometimes food, so that no one finds himself in distress.” This passage shows the historical fact that Buddhism after degenerating ceased to be a prevailing faith about the sixth century after Christ. Its works, however, survived it. Travelling on to the kingdom of

Matipoura (Central India), our author proceeds : "The kings who love to do good have established there a House of Benevolence (equivalent to a medicine house), which is provided with choice foods and medicaments of every kind, to give alms to widows and widowers, and to succour orphans and men without families." Thirdly, there is the kingdom of Moûlasambhourou which lay under the sway of Tchêka, where "the kings and great men have established Houses of Benevolence, and have distributed drinks, foods, and medicines to succour the poor and ill. At all times there are multitudes of men from all kingdoms who come to this sanctuary to obtain their vows." And, again, our traveller having reached the kingdom of Khavandha and come "to the north-east of a great rock, crossed some mountain passes, marched by the precipices, and going a long journey arrived at the House of Benevolence called *pounyaçâlâ*." A system so universal was not confined to the mainland, but passed with the doctrines of Buddha into Ceylon, China, and Japan. Coming down to a much later date there is a work in forty-two chapters, belonging to the close of the seventeenth century, containing an account of an academy of medicine and of a university in connection with the temple of Confucius at Pekin.

Regarding Ceylon, there is abundant and direct evidence in a work entitled the *Mahawanso*, the principal native historical record which has descended to us, written in Pali verse. The author of the period for the years 543 B.C. to 301 A.D. was Mahawanse, for the period till 1266 A.D. Dharma Kôti, and till 1758 A.D. Tibbottuwewé. There was a monarch, Buddhadâsa, 339 A.D., who comforted the sick by providing medical relief. Of him it is written, "out of benevolence entertained towards the inhabitants of the island, the sovereign provided hospitals and appointed medical men thereto for all villages. The Raja having composed the work *Saratthasangaho*, containing the whole medical science, ordained that there should be a physician for every twice five villages. He set aside twenty royal villages for the maintenance of these physicians, and appointed medical practitioners to attend his elephants, his horses, and his army. On the main road, for the reception of the crippled, deformed, and destitute, he built asylums in various places, provided with the means of serving those objects. Earnestly devoted to the welfare of mankind, disguising himself by gathering his clothes between his legs, he afforded relief to every afflicted person he met."

Of Upatisso, son of this monarch, it is told us that "he founded an asylum for the diseased" (368 A.D.), and that "he built extensive storehouses for the crippled, for pregnant women, for the blind, and for the diseased." Dhatuseñ erected hospitals for cripples and the sick. Mahaseno "repaired throughout the island numerous dilapidated edifices. There is no defining the extent of his charity in food and drink."

In a second work, entitled *The Rāja Ratnacari*, occurs this passage about one Dooloogameny: "And in all the consecrated places he caused hospitals to be built for the reception of the poor and sick and impotent, ordered them to be provided with medicines, wholesome food, and what was necessary for them, and, moreover, for every sixteen villages he appointed a physician, an astronomer, and a priest, and paid them at his own expense; and, having been a public blessing for a reign of twenty-four years, he departed this life and went to the heaven of Toisite." Another, Walagambau, "built hundreds of storehouses," a deed emphasised several times, and, from the general tenour of these records, pointing probably to hospitals among the rest.

There is a third work from which the following passage regarding Calenga Wijaja may be quoted: "After this the king built the city now called Candy, and many other places, and temples for the priests to live in, and provided them with all that was necessary, namely, clothes, meat, lodging, and medicines, and caused many gardens to be planted for charitable purposes, and ambulances, or resting-houses, to be erected for the accommodation of travellers."

In more modern times dharmasalas, or hospitals or monasteries, were built by the wayside for the assistance of the poor and sick.

The Birmans acknowledge that they originally received their religion from Ceylon, that it passed from them to Aracan and Ava, to Japan and China (A.D. 518). We are told that in Further India the precept "they shall promote all works of charity" was accepted; but it must remain a matter of inference that hospitals were established. In a history of the emperors of Japan, however, there are two very interesting passages. One tells us that in 808 A.D. Foio Kala, physician of the emperor, presented him with a work on medicine; the other, that in 813 A.D. Fousiwara no Fou and Kôbô postponed the plan of constructing a hospital, Nan Yen do, in the neighbourhood of the temple Kô bouk si. A

description of a temple in seven parts appears in another passage, and, although it includes a library specifically mentioned, a hospital does not appear to have formed part of the sacred edifice.

BRITISH INDIA.

As regards India at the present day, the British Government must be credited in this as in other matters with great improvements. Before the British supremacy, there were practically no hospitals and dispensaries in India. It is true, as already pointed out, that during the period of Buddhist ascendancy, beginning about 300 B.C., the Buddhist princes (Asoka especially) established hospitals, but when some centuries later the Brahminical supremacy again obtained, such institutions were suffered to decay. When the Mohammedan power became dominant in India, although *hukeems*, or physicians, were attached to the courts or to the establishments of great *Sardárs*, there were no public hospitals or dispensaries. The condition in respect to medical aid throughout the whole of India before British supremacy may be judged of by the state of affairs in many of the native principalities within the memory of officials now in the service. There were no hospitals or dispensaries for the provision of medical aid. Sick persons either recovered by the *vis medicatrix naturæ*, or, as most frequently happened, they passed a miserable existence, and finally died from the effects of disease, much of which was in the first instance preventable.

Lepers, not being cared for, became mendicants ; but of recent years, especially during the last three or four, active steps have been taken with a view to isolating lepers, and special hospitals have been erected in various parts of India with this object. These leper hospitals must be entirely dissociated from the leper asylums, many of which have been established in India by charitable persons, very few being under Government control—that is, having a definite line of treatment for the inmates—the majority being simply refuges where mendicants of all kinds, but principally lepers, resort. Very much of this is, however, now changed, not only in British India, but also in the Native States.

The establishment of most of the existing British hospitals originated in the following manner. When the British gradually took possession of the country and established cantonments at the

principal places, civil officials with their staffs necessarily appeared on the scene. It was soon found that medical officers with the troops were unable to attend to the demands made by the civil officials for their services, and to the increasing applications for medical aid from the outside population. Hence other medical officers were appointed, termed civil surgeons, and hospitals were established in which not only civil officials and their staffs, but also police and the general public, were admitted as patients. This, however, was soon found to be insufficient, and so it frequently happened that, on the application of the inhabitants, branch dispensaries were established in adjacent towns, Government usually providing the establishment, the expenditure for the maintenance of which was derived partly from private munificence, partly from patients' payments, and partly from the Government or municipal grants.

Thus, for example, in the Bombay Presidency the cost of maintaining 208 hospitals and dispensaries in the year 1884 was, in round numbers, Rs. 10,10,500, of which eight lacs were provided by the Government, rather more than half a lac was defrayed out of local funds, and rather under a lac and a half by the municipalities, the balance of Rs. 14,000 representing the interest on investments, patients' payments, and miscellaneous revenue. An increasing number of dispensaries in India have been endowed by native gentlemen, who usually perpetuate the gift by naming the institution after themselves. Upwards of three lacs of rupees have been given as endowment money to fourteen dispensaries in the provinces of Bombay, the gifts varying in amount from Rs. 8,000 to the Chikodi Dispensary, to Rs. 65,000 to the Victoria Dispensary, Navsári.

THE ROMAN EMPIRE.

We can find no notice of the military hospital before the reign of Hadrian, but Haeser* has shown that the profession of medicine was recognised from the third century B.C., although it was chiefly in the hands of slaves, principally Greeks.

The medical art was looked upon with a degree of contempt in the robust days of Rome; but Julius Cæsar and the earlier emperors encouraged the settlement of foreign physicians in Rome,

* *Lehrbuch der Geschichte der Medizin. Epidemische Krankheiten.* Zweite Auflage, 2 vols. 8vo, Jena, 1853-65.

and it is recorded that Archagathus, 218 B.C., received the freedom of the city at the hands of the senate, besides being provided with a "taberna medica." In the time of Augustus it was decreed that physicians should be free from certain civil obligations, and increasing and similar privileges were bestowed upon members of the profession till the time of Hadrian, who exempted them from every kind of *onus civile*, both patrimonial and personal. These exceptional privileges led to great abuses, and Martial* states as a result that they were so hard pressed for want of employment that the least worthy sometimes turned an honest penny by acting as corpse-bearers at funerals, and as gladiators.

Soon after the commencement of the Christian era specialism prevailed to an inordinate extent, and oculists, dentists, aurists, hydropists, and even fistulists were numerous, as well as special pharmacists for herbal remedies, ointments, eye-washes, and the like. Many women practised medicine in those times, and lady obstetricians were in high favour. According to Haeser, open surgeries were the rule, though they varied much as to character, price, and respectability. These "*tabernæ medicæ*" led indirectly to the establishment of hospitals, as it was found desirable in certain cases to have the patient under constant observation, and so rooms were set aside in connection with these establishments for the reception of in-patients. Galen, xviii B. (629-925), and Plautus, give particulars of the *tabernæ medicæ* or *iatria*, which were erected by many towns at their own cost. They were frequently large buildings so constructed as to admit abundance of air, and were provided with surgical instruments and medical appliances of all kinds.

It does not appear how far evidence of medical knowledge was required of those practising physic in the earlier days of the Roman Empire, but Alexander Severus (205-235 A.D.) enacted that the privilege of practising as a physician should be granted only by the local authorities, in expectation, as Sir John Simon points out, "that they who were most interested would make sure of the probity and skill of the persons to whom they had to entrust their own and their children's lives." The same writer states that "long before Hadrian's time, and at least to some extent within the republican centuries, Roman cities had had the practice of appointing medical officers for public purposes." It was doubtful how these medical practitioners were selected and paid; "but it seems certain

* Martial, I, 31 and 48; VIII, 74.

that when the number of *immunes* was limited by law, certain public duties were made to accompany the privilege, and that, in this way, the Roman cities acquired the class of officers who afterwards became distinguished by the name of *Archiatri populares*." These appointments were made from among the public slaves of those who were supposed to be skilled in medicine, and the system was somewhat the same as that which existed in Athens as recorded by Socrates. The Roman slave-doctors were appointed to attend to the slaves who belonged to the State, and never interfered in favour of the native proletariat. Antoninus Pius is said to have been the first to consider this class of society by instituting communal doctors. He ordained that in every town there should be five, seven, and even ten doctors, according to the size of the town, and that they should be free from all taxes, on condition that they should give fixed services to the State and commune. Among other functions, they were obliged to give gratuitous attention to the poor, and keep a watch over the private doctors of the locality. Alexander Severus gave them the title of "*Archiatri populares*," which they bore for a long time, and which distinguished them from the "*Archiatri palatini*," or physicians to the Emperor. These "*Archiatri populares*" are undoubtedly the prototypes of the district medical officers in modern Italy.*

It is very instructive and important to bear these facts in mind,

* On this point, and with especial reference to the medical service of the poor, Sir John Simon, K.C.B., writes :—"It is not possible to trace with exactness the development of this Roman institution of urban medical officers, but an extremely interesting picture of it, as it existed at a comparatively late period in the city of Rome, is furnished in a memorable edict of Valentinian and Valens (364-375 A.D.), regulating for the city the appointment of those district officers. Each of the *regiones* of the city, except the gladiatorial *regio* of the Portus Syxti, where the gladiators had a medical officer of their own, and except the similarly privileged *regio* of the vestal virgins, was to have its local medical officer : who, knowing himself to be paid by salary for attending to the poor, must (says the edict) think of them rather than of the rich ; and who, where there is question of fees, must take as his standard, not what men fearing for their lives will promise, but what men, recovered from sickness, will offer ; and when a vacancy occurred among these district medical officers, the filling of it was not to be by favour, or on solicitation of magnates ; but the remaining district officers, *omnium fideli circumspectoque delectu*, are to propose a man who shall be worthy of their ranks, and of the dignity of the office, and of the emperor's approval. - Curious, but not unparalleled, inconsistency : that the people which could so worthily conceive the institution of a medical service for the poor, should still be enjoying, as a chief public pleasure, the spectacle of gladiatorial homicide !" (*English Sanitary Institutions*. London, 1890.)

because the system of medical service thus established, and especially the practice of medicine as nurtured in Rome, remained almost stationary for fourteen centuries, and formed the basis of medical treatment until the middle or end of the eighteenth century. It is noteworthy that medical treatment in Rome at the "*tabernæ medicæ*" was confined almost entirely to out-patients. We in England to-day have arrived at a state of affairs in connection with out-patient practice which tends to make it the greatest pauperising agency the world has ever seen. This is owing to the practically unrestricted adoption of a system which sanctions and promotes the greatest injustice to the large body of private medical practitioners in every great city and town throughout the country. And this in spite of the enormous development of hospitals which everywhere provide an adequate, and possibly an immoderate, accommodation for the treatment of in-patients. The "*tabernæ medicæ*" appear to have been of every grade, from the twopenny dispensary to the sumptuous consulting-room of the great physician of that time. All of them, at any rate, appear to have possessed this advantage over the modern out-patient department—that every patient resorting to them had to pay a reasonable fee for the treatment he received. If this was indeed so, what a satire the modern out-patient department becomes upon our boasted civilisation and scientific superiority !

CHRISTIAN HOSPITALS.

During the earlier centuries of our era, when Rome was the seat of conflict between Christianity and Paganism, and all the cruelties of persecution were practised upon the disciples of the new Faith, the chief agency for the relief of the poor and sick was the ministry of the deacons, who went to seek the suffering in their own homes. This system was established by the apostles for two purposes—for providing help at the altar in the administration of the Eucharist, and for distributing among the poor the succour of which they stood in need. It was only after the accession of Constantine that various establishments were founded for the relief of the wants of all those unfortunates whom the Church had in view to solace. The institution of these agencies necessarily wrought a great change in the whole nature of charitable work. Rome was soon divided into seven conscriptions, which became the basis of the charitable organisation of St. Clement. The poor had

their names inscribed on a special register, and when ill were visited. When Christianity had triumphantly established itself, in place of its ministers going stealthily to the poor with assistance, or to offer them a place at the tables of the rich, the needy were taken care of in suitable institutions. Constantine recognised for the Church the legal right to hold property, and, besides restoring to it property which had belonged to the martyrs, he richly endowed it with houses, lands, and grounds. In a law of Justinian there occurs a classification of the different varieties of foundations which now began to originate, including *xenodochia*, *nosocomia*, *ptochotrophia*, *gerontocomia*, and *brephotrophia*.

Brephotrophia were places for the up-bringing of children, and at first were hospitals for foundlings. Some have held that they were lying-in institutions. *Ptochotrophia* were places where the poor were nourished. Pope Symmachus, about 498 A.D., built near the church of St. Peter and St. Paul, as well as near that of St. Laurent, small habitations (*habitacula*) for the poor. They were not hospitals, but hostelries for the poor and beggars. *Xenodochia* were for wayfarers or strangers. *Nosocomia* corresponded precisely with our hospitals. *Gerontocomia* were institutions for the aged.

In the time of St. Chrysostom the Church of Antioch supported 3,000 widows and virgins, besides strangers and the sick. Basil in 370 A.D. had one erected near the gates of Cæsarea, apparently for lepers, and he received estates in Cappadocia for its maintenance from the Emperor Valens. St. Chrysostom, the contemporary of Jerome, founded another hospital in Constantinople, as well as less important ones elsewhere. He commanded that all surplus revenues should be devoted to their support. At the head of each he appointed two priests, chosen from his most pious followers, adding doctors, cooks, and assistants capable of seconding their efforts. All were unmarried. At this time there were in Alexandria 600 *parabolani*, or brethren, of an Order probably in charge of the sick. They were selected by the Prelate of Alexandria from among those who had most experience in this service. Their number was reduced in 416 A.D. to 400, but two years later 100 had to be added. Fabiola, a Roman lady of the ancient line of Fabius, sold her very considerable patrimony, and, besides helping the poor, founded the first hospital in Rome in connection with which there was an institution for convalescents in the country. She admitted the sick, whom she collected from the public roads. She constituted herself a nurse,

the first of her order, and was in the habit of bearing the sick about, and of bathing their sores on which others would not look. No less generous of her person than of her purse, she braved discomforts that would have discouraged others, and seemed to feel that in caring for the wounds of her patients she was caring for those of her Saviour. The same devotion is praised also in the case of the Empress Flaccilla, who went herself to the hospitals, took care of the sick, prepared their food, tasted their drink, and performed for them all the duties of a menial ; and when they sought to turn her from her purpose, she replied : " Let the Emperor distribute his gold ; this I will do for them on whose behalf he holds his empire." Symmachus founded a second hospital at the Roman Gate. Occasionally several such establishments were all under one roof, called *xenones* ; and Chrysostom tells us that there were places for the sick.

St. Ephrem, on the occasion of a terrible famine in Edessa in the year 375 A.D., was entrusted by the rich with a sum of money, which he laid out in furnishing 300 beds in the public galleries, for those suffering from famine. The institution probably survived him ; and many similar to it were founded not only for passing scourges, but against permanent evils, such as leprosy.

Nosocomia multiplied. There were many in large towns, some in towns of the second order, and some in the country. St. Augustine founded one at Hippo. Justinian restored a hospital for cripples at Constantinople, in which city hospitals owe their origin to Florentius, Dexicrates, Eubulus, and Etienne, Chamberlain of the Emperor.

Thalasius founded an asylum for blind beggars on the banks of the Euphrates ; and Apollonius, a merchant, established a dispensary for monks on Mount Nitria. Basil's example found many imitators, not only in Cappadocia, but throughout the empire. St. Marcian, Grand Steward of Constantinople, gave all he possessed to found a *xenodochium* for his church ; and others did likewise. St. John the Almoner, besides establishing seven maternity hospitals, founded several *ptochotrophia* and *xenodochia*, to which he gave quantities of corn. Among the laity, Gallicanus founded a hospital at Constantinople, Belisarius two at Rome, Childebert one at Lyons which was the first hospital in France and was celebrated in the Council of Orleans. Whether erected by them or not, the majority of these early hospitals soon came under the control of the local bishops, who nominated the *magistri hospitalium*, the *xenodochi*,

paramonarii or directors of institutions where travellers were received, orphanotrophi, brephotrophi, and ptochotrophi. The brethren in attendance were also appointed by the local bishop, and the properties, unless the donors had expressly stipulated the contrary or he was himself unworthy of the trust, were administered according to his judgment. Where the funds were not adequate, grants were made from the Church revenues, or the deficit was supplied by donations and legacies. In the History of Byzantium there is a list drawn up of thirty-four such institutions, several of which had received special names.

An important medical centre, of very early foundation, which may, indeed, have originated in the fact of the town having been used as a health resort, was Salerno. Some have attributed its origin to Charlemagne. The archives of Naples furnish us with the names of Salernian physicians from 846 A.D. Adalberon, Bishop of Verdun, was there in 984; Didier, Pope Victor III, in 1050; and Peter, Bishop of Amiens, in the middle of the eleventh century. In 1059 it is mentioned that Rudolph Mala Corona came to Salerno, where there had been for a long time the most celebrated school of medicine. In the period between the years 1000 and 1050 it was flourishing in all its glory; ladies were received, and one Trotula is mentioned by name in 1050 A.D. Hospices multiplied in Salerno and assumed a new development. The earliest is recorded in 820 A.D. Under the first Angevins (1266-1380) they became very numerous, and received large donations. Some were destined by their founders for the poor and strangers; others, for children or women who wished to keep themselves from the dangers of the world; yet others were for the sick, who were lodged and cared for. In the middle of the thirteenth century, Gérard translated various Arabic works, which replaced the Græco-Latin ones. Frederick the Second united all the schools to a university, and decreed that students should devote three years to philosophy and literature, five years to their medical studies, and one year to service with a practitioner. It would, therefore, appear that there were no clinics at the hospitals. But he aimed a fatal blow at the prosperity of the school when he founded that of Naples. Montpellier, famous as the seat of Guido's Hospital of the Holy Spirit, had early become its rival.

The most ancient university foundations in Europe are those of Bologna, 1110; Oxford, 1140; Montpellier, 1180; Paris, 1205; but in all of them a medical faculty was late in being developed.

MONASTERIES AND HOSPITALS.

The first hospitals were in bishops' houses, but as the episcopal resources proved insufficient, the Church decreed that the canons should give the tenth of their revenues and oblations to maintain the sick poor. In early times the hospitals were always under the direction of priests. Thus St. Isidore presided over the institution at Alexandria, in the time of the Patriarch Theophilus.

In 816 A.D. Charlemagne determined that at each See one of the canons should always govern the hospital, and that these institutions should be everywhere near the cathedral, in order that the clergy might easily visit them. The consequence of this early discipline can be seen at Paris, where the Hôtel-Dieu is in the Place before the cathedral; and at Brussels, where the great hospital adjoins the church of St. John.

The monasteries of the Early and Middle Ages stood in intimate relationship with hospitals. A special room appears to have been set apart in them for the hospital or infirmary surgeon. There were several varieties of these infirmaries devoted to cloister patients, or sick strangers. In the hospitals, which in Scotland in 845 A.D. were placed under ecclesiastical protection by synodal canons, separate departments were formed, according to the malady to be treated, and classed as bedridden, convalescents, or incurables. Indeed, it is stated that even in 680 A.D. the moribund were brought into a separate chamber to die. There was commonly a chapel attached to these infirmary rooms. Private apartments, called *antexenodochia*, were often used as duplicates for special cases of illness of an aggravated type. Gradually the importance of this monastic infirmary for poor and stranger invalids became more and more pronounced.

In the year 1006 the Venetian Republic possessed a hospital erected through the munificence of the ducal Urseolo. In 1173 the Christians in Jerusalem had one for the use of their own sick and infirm.

The Crusaders learnt much from the hospitals in Jerusalem, if not also from their Saracen opponents; and the whole route which they followed became from point to point furnished with hospital accommodation.

A century or more anterior to Pepin, who in 757 A.D. forbade by rescript the marriage of a leper with a healthy woman, there were

hospitals exclusively for lepers under monastic management, erected at important centres throughout the colossal dominions of the Carolingians. London as early as 1118 established a leprosarium for absolute sequestration. During the reign of Louis VIII the disease had made such astonishing progress that on his death, in 1225, he left a large sum of money, with the direction that it should be divided among the 2,000 lazarettos for leprosy in his dominions. This large number of leper hospitals had not diminished by the fifteenth century.

In curious contrast with the intimate connection between monastery and hospital in the West was the state of matters in Russia late in the seventeenth century. Macarius, Patriarch of Antioch, after travelling all over the coasts of the Black Sea, and traversing Moldavia and Wallachia, was received by the Russian Emperor in a new convent built by him in honour of St. Saba the Minor, situated on the banks of the Moscwa, not far from the Russian capital. Now, although throughout these *Travels* such institutions are constantly mentioned and carefully described, this is the single instance in which a hospital is recorded as attached to the religious foundation proper. In addition to treasury and storehouse there was an inner building containing many cells one within the other, for summer and winter use, with a chapel also, "where those monks of the convent who were paralytic, blind, or bedridden, or afflicted with other chronic diseases, were laid, that they might have more quiet and rest. And the Emperor had appointed them a chief of their own quality from among themselves, a steward, and servants, and priests, in like manner, to say Mass for them. He named this place the Repose of the Sick." The Emperor himself conducted his visitors to one cell where lay a sick brother, who had been unable for six years to move his feet.





CHAPTER III.

SOME OF THE EARLIER AND GREATER CHRISTIAN HOSPITALS.



HAVING thus touched on the hospitals of pre-Christian times and non-Christian countries, as well as those founded while the Church was still poor and struggling, we proceed to those it established after it became paramount throughout Europe.

FRANCE.

The monasteries, which were first established in the fourth century of the Christian era, were among the first hospitals, or rather *hospices*, for they served for the resting-places of pilgrims as well as for the sick. The Council of Aix-la-Chapelle ordained that every monastery should set aside a special place for an asylum ; and the Emperor Justinian built on the road to Jerusalem a *hospice* for pilgrims and a hospital for the sick. Thus the task of nursing the sick became specially the province of members of religious bodies, in whose hands it still remains in nearly all Catholic countries ; while the title of "sister," now given to those nurses who have the most responsible charge in our hospitals, perpetuates the memory of those earlier times.

Of hospitals which were not the direct off-shoots of monasteries, the oldest, so far as we can tell, is still great and flourishing—the Hôtel-Dieu, "God's Hostelry," in Paris, founded by St. Landry, Bishop of Paris, at his own cost in the year 600 A.D. This was in its original form more than simply a place where the sick were tended. It was a charitable organisation which embraced every

form of aid to the poor and needy. The functions of the inn, the workhouse, and the asylum, as well as those of the infirmary, were concentrated in the Hôtel-Dieu. Its daughter-institutions—the St. Louis Hospital, the Hospital for Incurables, the Hospital for Convalescents, and the St. Anne Hospital—were all valuable and important. Its domain, urban and rural, was large and rich, and its administrators were men who stood high in the State—the presidents of the sovereign court of Parliament, and, after the year 1690, the Archbishop of Paris, by virtue of his office. (M. Möring, *Documents pour servir à l'Histoire des Hôpitaux de Paris.*) The oldest paper in its rich collection of archives bears the date 1157, and from the year 1531 to the present time one may find a complete record of every incident of its history. Some of these are curious enough, for note is made of every appointment, and a full record is kept of every meeting of the governing body.

At one time the hospital apparently suffered from a plethora of nurses, for, under the date 30th May, 1578, we meet with this order:—"To-day it has been enjoined on the Master and the Prior not to receive henceforth any novices" ("filles blanches"—nuns who have not yet taken the black veil) "without speaking of it to the Company, because there are an excessive number of nuns and novices, who cause great expense to the said Hôtel-Dieu." Nearly a century later, on the 2nd January, 1664, we find a woman who purposes becoming a nurse seeking instruction on a special subject at the Hôtel-Dieu—"Caterine Barbusseau came to ask the Company to permit her to learn bleeding in the Hostel-Dieu, speaking of being received as a nun among the Daughters of Charity of the Place Rosale."

The seniority of the Hôtel-Dieu is contested by an establishment at Lyons, founded in the sixth century by King Childebert, son of Clovis and his queen Brunehaut. The Council of Orleans mentioned this hospital and forbade any diminution of its revenues on any pretext whatsoever; while anyone who deprived it of a part of its property was to be anathematised as the murderer of the poor. (De Watteville, *Législation charitable.*) Soon after the foundation of the Lyons Hospital, similar institutions were founded at Rheims and Autun; and in 567 A.D. the second Council of Tours commanded each parish to supply the necessities of its own poor, "in order that they may not go wandering into other localities." (G. Cros-Mayrevieille, *Traité de l'Administration Hospitalière.*)

At the end of the eighth century the Spanish Moors founded a large hospital at Cordova, and established in connection with it a medical school, where many celebrated doctors of the Middle Ages were trained.

At this time the hospitals had a right to a fourth of all revenues possessed by the clergy, as their devotion was relied on to see to the welfare of the infirm. After a time, however, the priests began to divert the hospital revenues into ecclesiastical channels, which caused the Council of Vienna to transfer the management of these institutions to laymen, who were to give account of their stewardship to the bishop of their diocese. This resolution was confirmed, four years later, by the Council of Trent.

The reign of Charlemagne was marked by the foundation of hospitals of various kinds all over his vast kingdom. His ambition was to be the defender (after God and the saints) of orphans, the poor, and the sick ; but, wise in his generation, he did all he could to repress vagabondage, and forbade the giving of alms to the able-bodied who refused to work. The institutions he founded in that barbarous age, and among nations that were only conquered by the Frankish king, not reconciled to his rule, did not long outlive him, although his son, Louis the Debonair, strove, so far as his more limited power allowed, to follow in his father's footsteps.

The feudal system, with its new social order, injured many of these hospitals of the early Christian time, and helped the abolition of the laws that ordered and provided for them. The barons were more avaricious than the bishops, and the poor suffered. From feudalism, however, arose the system of religious Orders devoted to the care of the sick. Allusion has been already made to the Knights of St. John of Jerusalem ; there were also the Orders of Saint Lazarus of Jerusalem and of Our Lady of Mount Carmel, who devoted themselves specially to the care of lepers, varied by occasional participation in more sanguinary work. The first of these Orders dates from the Crusades, while the second claims to have had its origin in the Hospital of St. Basil at Cæsarea. This antiquity is somewhat mythical ; but it is certain that a chronicler who wrote about the year 1100, William, Archbishop of Tyre, spoke of the Order of St. John as an illustrious branch from the still more ancient Order of St. Lazarus. (Eugène Vignat, *Les Chevaliers de Saint-Lazare de Jérusalem et de Notre Dame de Mont*

Carmel.) That the memory of the knights of St. Lazarus is more completely forgotten than that of the younger confraternity is due to the fact that they kept themselves more rigidly to the work they were vowed to do, and, while the "Hospitallers" became masters of Cyprus, Rhodes, and Malta successively, their brethren sought dominion only over disease, to the mitigation of which they devoted their lives, and which often made them its victims.

In the tenth century Benezech instituted in France another Order devoted to the service of the sick and of pilgrims, that of St. Jacques du Haut Pas; and in 1120 still another came into being at Albrac, in the diocese of Rhodes. These two Orders extended the idea of the confraternity to a point that makes it the exact parallel of our present system of hospital service, though more directly under the dominion of the Church, and with the military element superadded. These new Orders embraced both sexes and all ranks. Priests were at the head of all; monks, subordinate to them, attended to the poor and the sick; the knights protected wandering pilgrims; while to women was confided the absolute nursing of the sick. The hospital community included also servants and labourers who tilled the soil from which it derived its income.

A similar Order appeared at Roncesvalles in Navarre, in 1131, which possessed an institution so large and prosperous that, we are told, it could receive at one time nearly 20,000 pilgrims and poor. There was already in Spain the Order of St. John de Lortie, which was afterwards affiliated to the Order of the Hieronymites; as were the Orders of St. Gervaise and St. Proteus, in France, united under the Augustinian rule. In 1217 the nuns of this Order were called to nurse the sick at the Hôtel-Dieu, from which, after centuries of faithful service, the "Sœurs Augustines" have, by an edict of the Assembly, been only lately (1888) banished. About the same time—the end of the twelfth century—Guido of Montpellier founded the Order of the Holy Ghost, which deserves to be mentioned specially, as it possessed the novel characteristic that all its members were laymen, though a congregation of sisters was attached to it. There was further the Order of St. Vincent de Paul, which has done better work for the sick than probably all the other Orders put together.

The Crusades did much to extend the spread of hospitals. The wounded knights who had fought for the Holy Sepulchre awoke the instinct of humanity in their brethren, and crowned it with the charm of religious service; and they, in turn, who had been travel-

ling among the tokens of an older civilisation not yet fallen wholly into decay, told of the size and completeness of the hospitals of the East, and woke in their countrymen a desire for emulation. Thus we find it stated that in the thirteenth century there were in Europe no fewer than 19,000 hospitals. France possessed 2,000, to each of which Louis VIII, the father of Saint Louis, left by his will 100 "sols"; while a legacy of equal amount fell to 200 Hôtels-Dieu, or workhouses.

Saint Louis himself founded, in 1254, the *Quinze-Vingts Asylum*, meant to accommodate 300 blind persons. He also did much for general hospitals; and, a hundred years afterwards, King John II founded at Paris the first orphan asylum, an example which was followed by Charles VII in 1445.

During the fourteenth and fifteenth centuries the impulse of religion and charity had cooled, and the two epidemics which had devastated Europe—leprosy, which was brought back from the East by the Crusaders, and St. Anthony's fire—having disappeared, many hospitals fell into decay, and their possessions were appropriated to other uses, both by clergy and laymen. This aroused the anger of Francis I, who, in 1545, published an edict expressing his disapproval of this evasion of the wishes of the founders of the institutions, and commanding officers in charge of them to repress abuses, while he gave to the magistrate the power to remove incompetent or dishonest officials.

In 1561 Henry III went further than his predecessor, and definitely took away the direction of hospitals from the clergy and nobility, his edict expressly stating that only "bourgeois, shopkeepers, and labourers" should share in the administration of them, thus anticipating the modern claim of the working-classes to a share in the management of institutions from which they profit and which they support.

The new rules, however, were misapplied, as the old had been. Directors, appointed for life, neglected their duties, and the report of the Hôtel-Dieu given by Tenon, the president of a committee appointed by the Academy of Sciences at the request of Louis XVI, to inquire into the condition of affairs in the various Paris hospitals, was probably appropriate enough to all similar institutions in the country. "The commissioners," he says, "saw convalescents in the same rooms as the sick, the dying, and the dead. They saw the dead and the living together, the room allotted to the insane near that of the unfortunate creatures who had suffered

the most cruel operations and who can obtain no repose in the neighbourhood of these madmen, whose frantic cries are heard by day and night. The room where operations are performed—trepanning, cutting, amputating—contains at the same time those who are being operated on, those who are awaiting operations, and those who have already undergone them. The operations take place in the middle of the room itself. One sees there the preparations for the torture, one hears the cries of those who endure it; he who is to suffer to-morrow has before him the picture of his future agonies; he who has passed through this terrible trial—imagine how deeply he will be moved by these cries of pain! They feel these fears, these emotions, in the midst of the accidents of inflammation and suppuration which delay their recovery and endanger their life.” (Quoted by Cros-Mayrevieille.)

In spite of these revelations, however, this disgraceful organisation was little remedied. The work of private benevolence nevertheless went on, and Necker, who was both an economist and a philanthropist, wished to give Paris a model establishment which should be marked by every known improvement, and for this purpose founded a hospital which bears his name, and which was opened in 1789.

All the efforts of failing royalty, unable to uphold itself, could do little for neglected or ill-administered hospitals; and in the storm of the Revolution the very existence of them was threatened, some very advanced authors going so far as to say that these establishments aggravated the ills they strove to cure. It is needless to go into the arguments of these writers, they are so obviously ridiculous, though they assume that all men being brethren will help each other in a promiscuous and unmethodical fashion. After the Revolution, however, the hospitals sprang into renewed life, founded now not on the will of king, minister, or prelate, but on the respect of the people who had proved their usefulness.

Before quitting the subject of French hospitals, we may quote Necker's calculation that France possessed in 1789 about 700 charitable establishments of all sorts—a sad falling-off from the 2,000 of the crusading days—which sheltered 105,000 of the poor or sick, in the following proportions:—

Foundlings	.	.	.	.	40,000
Infirm and aged	.	.	.	.	40,000
Sick	.	.	.	.	25,000

THE FIRST ENGLISH HOSPITALS.

England was a little later than France in founding hospitals. The earliest of which we have any record was founded by the Archbishop of Canterbury in 900 A.D.; but the same access of religious fervour which found vent in the Crusades, and gave the impulse to the founding of charitable and religious institutions on the Continent, affected England also, and many of our hospitals still in existence, several of them large and flourishing, had their beginning in the twelfth and thirteenth centuries.

One of the oldest—at least the one whose reliable records bear the earliest date—is St. Bartholomew's Hospital. It was founded between 1123 and 1133 by Rahere, the jester of King Henry I, who, like the Chicot of history and the Jaques of poetry, grew tired of fooling and joined a religious Order, and obtained from the king, his old master, who still cherished an affection for his faithless jester, the grant of an empty space of ground in the west suburbs of London, called Smithfield. There he built a priory, and on the south side of this he erected a hospital. The original "Bart's," though on a smaller scale than the present, was meant to fulfil a wider scope. It was meant not only for "poor diseased persons till they got well," but for the reception of obstetric cases; and it also provided for the maintenance of all children born in the hospital until they reached the age of seven, if their mothers had died there.

St. Bartholomew's Hospital presented from the first exceptional opportunities for the study of surgery. The original name of Smithfield was "Smoothfield," and its green meadow was a favourite scene of jousts and tournaments. A tradition of its old fame, before first martyrs and then cattle became connected with it, survives in the name of "Giltspur Street," which still indicates the road by which the gaily-caparisoned knights rode to those "gentle and joyous" sports which so often ended in wounds and death. These wounded knights would, not improbably, be taken to St. Bartholomew's Hospital, where the brethren—the house-surgeons of those days—could apply oil and wine, and, where necessary, the actual cautery, or the boiling pitch, with all the skill and tenderness of which they were masters.

King John, of inglorious memory, deserves a kindly thought in connection with St. Bartholomew's Hospital for a charter confirm-

ing the annexation of the hospital to the priory, and threatening with confiscation of goods anyone who should interfere with its vested interests. The individual who should separate the two branches arose some centuries later in the person of Henry VIII, who had no cause to fear King John's threat. That threat merely ordained that the goods of the wrong-doer should be confiscated to the king; so King Henry confiscated his own goods and the Church's also to himself. This was naturally a serious matter, not only for the master, brethren, and sisters of the hospital, but for the poor and infirm whom they had tended there; and on a petition being laid before him by the mayor, aldermen, and commonalty of the City of London, in 1538, his Majesty was pleased to permit the mayor to have the government of "St. Bartholomew's Spital"; and further, in the thirty-sixth year of his reign (1544), King Henry re-established the hospital on a secular basis, for which he is revered as the second founder. He appointed as chief officers of the hospital a master, priest, and four chaplains, the first to be called the vice-master, the second the curate, the third the hospitaller, and the fourth the visitor of prisoners in Newgate, which stood within the parish of St. Bartholomew. Besides these there was appointed a matron with twelve sisters under her to attend to the sick.

What nursing was in those days may be gathered from the fact that these twelve nurses were ordered, when their daily work among their patients was done, to occupy themselves in spinning, sewing, mending of sheets and shirts, or some other virtuous exercise such as they should be appointed unto. They are also wisely commanded, in common with the matron and most of the other officers, if they should perceive anything amiss, to inform the governors and meddle no further therein. The king at the same time endowed the hospital, from what had been its own revenues, with lands and tenements to the clear value of 500 marks yearly, on condition that the citizens should undertake to provide it with an equal income. This re-establishment and re-endowment caused St. Bartholomew's to be included among the Royal Hospitals of London, the others being Christ's, Bridewell (an old palace transformed into a house of correction), and St. Thomas's. (*Memoranda relating to the Royal Hospitals of the City of London*, pp. 2, 77.)

The history of St. Thomas's Hospital is in many respects similar to that of St. Bartholomew's, though the institution may have been

founded a little earlier. To prove its superior antiquity, however, we must go back to times when it was not known by its present name. In the reign of William Rufus there lived a woman, pious, robust, and unmarried, who amassed a considerable fortune by a ferry across the Thames near the present station of London Bridge. This she devoted to the building and endowment of a convent near her residence in Southwark, which pious deed procured her the honour of canonisation under the title of St. Mary Overie, the latter name standing for "over river," in allusion to her old trade. This convent was burnt down in 1212, and, while it was being rebuilt, the prior and canons erected a temporary home for themselves on the site where St. Thomas's Hospital stood till the near approach of the South-Eastern Railway made removal advisable.

When the Southwark monks left their temporary home it remained unoccupied for some time, but Richard, the prior of Bermondsey, saw in it a convenient place for an "Almery" he had established for the benefit of "indigent children and necessitous proselytes." This "Almery" engaged the attention of Peter de Rupihes, Bishop of Winchester, who enlarged its functions by adding a "hospitium" for the aged and infirm, and increased its rents to £344 yearly. He appointed a resident master and brethren under the superintendence of the Abbot of Bermondsey, but he reserved the patronage of the establishment to himself and his successors in the Bishopric of Winchester. The hospital was thus held till 1438, when a composition was made between the Abbot and the master of the hospital for all the lands and tenements which were held of the Abbot in Southwark or elsewhere, at the old rent. The hospital was valued at £268 17s. 6d. by the visitors who examined it in the king's interest in 1538, when, like St. Bartholomew's, it was surrendered to him.

The public generally approved of the king's taking possession of the hospitals, for there had been grave abuses in the latter days of the religious Orders, and, when the new regulations were made, the citizens of London contributed munificently to their re-endowment. During the reign of Edward VI they surpassed their efforts of King Henry's time, and set to work in a systematic fashion to find out the amount of poverty and distress existing in their city, with a view to relieving it. The returns of this census were as follows :

Fatherless children	.	.	.	300
Children overburdening their parents	.	.	.	350
Sick and lame persons	.	.	.	200
Aged and infirm	.	.	.	400
Poor householders	.	.	.	650
Idle vagabonds	.	.	.	200

The provision made for these was careful and generous. Old hospitals were repaired and enlarged, and the citizens gave handsomely both in money and kind. One promised 500 feather-beds, 500 mattresses, the same number of blankets, and a thousand pairs of sheets, and offered, should these not prove sufficient, to give as many more as should make his contribution worth a thousand marks. At the same time Christ's Hospital was founded on the site of the Grey Friars' monastery, which was bought for a very small sum.

The generosity of Londoners to their hospitals did not fail as time went on ; and, when St. Thomas's was rebuilt in 1693, no less than £38,000 was raised for the purpose.

That both the citizens and the king did their best for the poor and sick of the city need not be doubted, but the very best institutions are liable to drift into negligent ways if they are not subject to the constant influence of an earnest and enlightened public opinion ; and Howard's review of the hospitals he visited in England and on the Continent shows that much carelessness, to say nothing worse, existed in the administration of nearly all of them. Of all the London hospitals, Guy's is the only one he fully commends. There he found an attention to ventilation and to other matters affecting the health and welfare of the patients which was rare elsewhere. In many of the provincial hospitals the atmosphere of the wards was "offensive beyond description" ; the ceilings were too low, the windows too small, and in many cases the sashes were nailed so that they could not be opened. In many of the hospitals the bedsteads were of wood, and several of them had testers. The result of this may be seen from an item in the accounts of the Westminster Hospital—a certain sum paid every year for the destruction of bugs. Cleanliness, too, seems to have received less attention than Howard desired. Many hospitals were unprovided with bath-rooms, and respecting several others we note in his book, "bath, but seldom used." It is true that it was in the hospital of

St. John of Jerusalem at Malta that this lack of cleanliness was so great that the patients had to be perfumed to hide the offensive odour, and the physician went round the beds with a handkerchief pressed to his face ; but everywhere there seemed a lack of things which we now hold to be of the first importance in the care of the sick.

Since Howard's days a steady improvement in these respects has been going on ; though a matter which we now hold to be essential to the efficiency of a hospital—scientific nursing—is a thing of comparatively recent growth. In a sketch of St. Bartholomew's, to be found in an early volume of *Household Words*, the sisters are described as "good, kindly women," whose kindness seems to have been their chief recommendation ; and it is admitted that, of the nurses who worked under these, "some were competent, some the reverse." Regular training in the work of nursing seems to have been almost unthought of.

This brief sketch of the history of certain notable hospitals may serve to indicate the growth of our hospital system. Both in pre-Christian and in Christian times hospitals began as religious institutions in which the cure of the sick was secondary to worship ; but with increasing size and importance the two branches separated, to go on in brotherly fellowship as twin-workers in the service of God and of humanity.

ROMAN HOSPITALS OF THE MIDDLE AGES.

Rome contained many famous hospitals, and it is curious to note how fully alive the founders were to the needs of suffering humanity. It will be seen from the following brief notes, extracted from the original documents, that Rome had hospitals for acute, infectious, syphilitic, and incurable cases ; that there were establishments for various trades, and also a convalescent institution. We have thought it well to give these extracts, because they throw a somewhat curious light upon the methods and ideas of the earlier founders and hospital physicians. The hospitals are given according to the dates of their foundation.

The Hospital of the Holy Spirit at Rome was close to the Vatican, near the banks of the Tiber. Its original founder was Innocent III (1198-1216 A.D.), who attached it to the church of St. Mary the Virgin in Sassia. It was built at the sole charge

and cost of the Apostolic See, and subject only to it, and exempted from all kinds of impositions and grievances. In 1471 Pope Sixtus IV rebuilt it entirely, and amplified it to a state of magnificence which was further increased by the liberality of Leo X, Paul III, Pius IV, Pius V, and Gregory XIV.

The chief of the institution was called "Commendator," and was usually one of the chief prelates; under him were religious men who officiated in the adjoining church, and under them, again, was an innumerable company of servants in receipt of wages. Three apartments were devoted to foundling children. "The fourth apartment contains the sick, in a lower gallery, so long and so large that 'tis capable of holding a thousand single beds, which commonly in the summer are all filled with sick persons. And on the outside thereof next the streets runs along a portico or open cloister the full length of the gallery, into which, at several doors, come forth those that tend and serve the sick, after they have done with them and cleansed all within, to take by turns a little air and refreshment; though the gallery itself of the sick is always kept most sweet and neat. Opposite to this gallery, on the other side of the court, stand the several chambers for such sick persons whose infirmities are of that quality that it is not fit to lodge them with others, but each must have a chamber apart. Cross the upper end of the gallery below are several roomes, as so many Apothecaries' shops, the best furnished of any in Rome of all things necessary for diseased persons. Over these are several chambers well furnished and fitted for such persons of quality as, falling sick, have not the conveniency to be so well looked to and tended elsewhere. For these Pope Sixtus IV hath built a palace apart. Great care is here also taken of all those things which the sick bring hither with them, whether cloaths, goods, or moneys; all being inventoryed and deposited in the Treasurer's hands to be punctually restored to them, if they recover, or to their heirs if they dye."

Attached to the hospital was the palace for the Commendator and his "family" of some ninety persons, all having employment about the sick, whom he himself constantly visited: there were many appointed surgeons and physicians, who, if need be, watched the patients whole nights in turn, "for nothing is omitted to conduce to the health of the body." The yearly revenue of the entire establishment was nearly 100,000 gold crowns, every crown being equivalent to 7s. 6d., or about £37,500 per annum in 1624 A.D.

"There belongs to the place certain coaches and litters for sick persons, wherein they are carried up and down, in places of more wholesome air of the city: especially those persons that waste away in languishing fevers; that according to the prescript of their Doctors they may take some freer air."

The hospital for the sick near St. John Lateran was founded by John, Cardinal Columna, who was admitted by Pope Honorius into the Sacred College in 1216 A.D. It was a double hospital, one part being for men and holding 150 beds in the winter, and sometimes, in the summer, even 300 beds. Divided from this block by a street or public way was the women's part, which generally had 50 beds in the winter time. The physicians, surgeons, and priests were sufficiently numerous; the servants attending on the sick "very many." Fevers, sores, and wounds were admitted to the institution. "Those that are sick of a lingering and almost spent fever have here also a kind of coach to take the better air in, to exhilarate their spirits, and exhale their disease." It was endowed with a large revenue by Cardinal Columna, and he committed the government and care of it to the congregation of the Gentlemen of Rome. "The whole fabric is very conspicuous by reason of its sumptuous building."

To St. James's Hospital, founded by Cardinal Peter de Columna in 1338, were "brought to be cured all with old sores or wounds, such as have their sinews shrunk, that labour with the hernia, and such incurable diseases, whence it is named the Hospital of Incurables." This institution was much benefited by Anthony of Burgos; by Fryette Clement, Cardinal of Ara Coeli; by Bartholomew de la Cueva of St. Cross in Jerusalem; by Paul III; and by Antonius Maria Salviatus. There were numerous attendants, and the order in this house of charity was most accurate. Syphilitic patients were received.

Boniface IX began a Sodality devoted to the Blessed Virgin, with a church and hospital known as "The Hospital of our Lady in the Garden," from an image found there. "Those that are sick of fevers, or troubled with sores or wounds are treated there. There is a Physician and Surgeon, and Attendants, and all other things else provided that are necessary for the restoring of an infirm body. The Hospital, although it exclude none of any degree or condition, yet more willingly admits Mechanics, as Coopers, Millers, Mariners, Taylors, Gardeners, Carpenters, Carmen, Plowmen, Vinedressers, etc., which sort of people contribute very charitably towards it. The

confraternity, or Sodality, who have the care and regiment of all, consists not of any gentlemen, but of such mechanics. Beds for the sick are made there ordinarily about fifty in number, and, in the autumn and other sickly times of the year, two or three times as many."

The Hospital of St. Roche "receives in lodgings apart both men and women of all sorts that have sores, or be sick of fevers. They have a particular care of tradesmen, as mariners, hosts, carpenters, plasterers, minstrels, confectioners, fishmongers, etc., from whose charity their hospital has received a great addition. Because this hospital at first served only for men, Anthony Maria Salviati—Cardinal—adjoined to the former Hospital another great fabric for women, and endowed it with a revenue."

The better sort of bakers built a church and hospital, dedicating it to Our Lady of Loretto. "The Hospital is common to all afflicted with sores and fevers, but more particularly designed for bakers. They furnish thirty beds for the sick, but 'on an occasion they add more daily.' All things that can be thought of necessary or convenient for recovering of health, they there supply. Next, the German bakers have one adjoining the church of St. Elizabeth; it has 'beds and other necessities for the sick, good diet, and attendance.'"

There was a hospital in Rome, called St. Maria in Portico, so ancient that we have no memorial left of its beginning. That such there was an inscription tells us:—

"Divæ Mariæ in Portico Sacrum
Societatis Hospitale."

Or else the memory of it was either lost in the sack of the town under Clement VII (1523), or by the overflowing of the Tiber. This and two other hospitals near it were made into one, known as the "Hospital of St. Mary of Consolation," now generally called the "Consolation." Here are received men and women of what condition soever, if they be sick of fevers, or have any wounds or sores. There are physicians and surgeons and attendants. In the winter there are 100 beds, and in summer 200. The yearly revenue is large.

For the servants belonging to the Pope's family "(there being a very great number of them), about the year 1537 there was a kind of a body, or pious sodality, erected out of them; which, behind

St. Peter's church, at the entrance of the old circus of Nero, built up a temple to St. Martha, and by it an Hospital for the servants of the courtiers which fell sick, and could not be well looked unto in the Palace itself. The Hospital is abundantly furnished with beds and other necessities for treating of the sick."

The Hospital of Fâte-ben Fratelli was founded in 1540 A.D. by John Colavita, a Spaniard, originally a bookseller by trade. It received 100 patients, or more upon emergency. It had no yearly revenue, but was maintained by alms collected by the hermits who had adopted the rule of John Colavita.

In 1580 A.D. "the coachmen and carmen joined together, and out of themselves instituted a sodality of the better sort, which built an hospital in Campus Martius, near Tiber, only for sick coachmen and carmen. Here therefore are entertained all the infirm of these professions. Nor are they dismissed until they be known to have recovered their former health, so as to be able to drive their coaches or carts, and govern their horses. Of these sorts of men there is no small number in Rome, since the very coaches and chariots of the gentry exceed 2,000, not reckoning carts or country waggons."

There was also the Hospital of the Holy Trinity for convalescents, for those recovering from fevers. They were taken from the hospitals for the sick and carried in the town coach for that purpose into this convalescent home, "where for three days they are entertained with more plentiful and stronger diet; that so being restored into their former strength, they may be the sooner enabled to follow their work and wonted business."

MILAN HOSPITAL.

It would, of course, be possible to give further and fuller particulars of very many hospitals scattered throughout the world. One of the most famous and largest is the Ospedale Maggiore of Milan, which was founded by Francesco Sforza, Duke of Milan, who gave his own palace for the purpose in 1456. This institution has upwards of 2,000 beds; it has absorbed very many smaller institutions, and fabulous sums have been left to it from time to time by will. We shall return to this great institution in a subsequent chapter.

NORTH AMERICA.

As it appears that no useful purpose would be fulfilled by adding to the French, English, and Italian hospitals enumerated above, we have decided to exclude a good deal of matter which has a certain interest of its own, although it is of no value for practical purposes. Of course, in North America hospitals were founded subsequently to the European occupation. The first hospital was established at Quebec in 1637 and is still in existence, though it seems to have had a very chequered career. It is called the Hôtel-Dieu du Précieux Sang, was built in 1638, and opened in 1639. In 1755 it was burnt down, when a portion of the buildings devoted to the Jesuits' College was set apart for hospital purposes until the new buildings were ready for occupation in 1757. From 1760 to 1784 it was almost entirely occupied by English soldiers, and an entirely new building was erected in 1825. Additions were made to it in 1854, 1858, and so recently as 1886, when two wards were added for "sick paying-ladies." The nursing is, and always has been, under the direction of the Augustinian Sisters of the Mercy of Jesus. The hospital and the monastery have been endowed separately by the Duchess of Aiguillon, Peeress of France and niece of Cardinal Richelieu, a minister of Louis XIII. The foundress separated the endowment on the condition that "the hospital's funds and income would be managed by the Sisters of this establishment, under the only superintendence of their ecclesiastical superiors." The hospital now contains one hundred beds, of which seventy-two are occupied on an average.





CHAPTER IV.

SYSTEMS OF HOSPITAL ADMINISTRATION.



THE systems of hospital administration in force throughout the world may be grouped under three main heads :—(1) the Voluntary System ; (2) the Intermediate System ; (3) the Government, State, and Municipal System.

It is not difficult to believe that the last two systems are usually met with, in whole or in part, in most European countries, in the British colonies, and in India. There are, of course, many varieties of method in connection with these systems to be found in different countries, which will become apparent from a study of the full description of the various systems given later. In the United States of America the voluntary system prevails, and also certain forms of State control. America, owing, no doubt, to the fact of its being a relatively new country, possessing few endowed charities, and an energetic population consisting largely of those who resort to it in the hope of earning an independence, may be regarded as the home of the pay system. Anyone accustomed to the pauperising influence exercised by the voluntary system in England must be struck, when examining the work of an American hospital, by the fact that the majority of patients occupy pay beds or paying wards. There is relatively little free medical relief anywhere in America, and the number of hospital beds in proportion to the population is insignificant as compared with those to be found in England and the older countries of Europe. The reason no doubt is that the American values his independence, and so has been educated to feel that no member of the community is entitled to

free medical relief unless or until he becomes so impoverished as to render it altogether impossible for him to pay anything for it on behalf of himself and of members of his family.

It is no uncommon practice for an American hospital committee to meet at the commencement of the financial year, when a budget is presented showing exactly what the income from all sources will be, and how far it will suffice to provide free beds. A resolution is then proposed and carried, authorising the maintenance of such a number of free beds, and no more, as the available income will warrant, the rest being set apart for the reception of paying patients. Americans hold rightly that no person is entitled to occupy a free bed unless or until he can prove beyond dispute that he is unable to pay something for the treatment he receives in the hospital ward. It is not the business of the managers to exert themselves to ascertain the circumstances of each patient, because every applicant for relief is bound to present his own credentials clearly defining how far and to what extent, if at all, he is able to pay for the relief he receives. A rota of hospital visitors is established, who decide, after consultation with the medical superintendent of the hospital, to what class of bed each patient shall be allocated. In the case of accidents and urgent medical cases a patient is admitted because of his medical necessities, but in due course the friends are communicated with, and within a week the members of this class of patients are grouped according to their means, and are so entered in the hospital books. The reason why the English system has steadily deteriorated is, that the managers have proceeded on a wrong principle when dealing with the circumstances of each patient. It has become the practice to consider it to be a part of the duty of the managers to inquire into the circumstances of the patient, instead of insisting upon each patient providing adequate credentials as to his circumstances and means. The English practice is in fact the exact converse of that in force in America ; and to this cause initially, and to this alone, most, if not all, the abuses connected with the English system are due.

Free relief has now become so general that the majority of the population in England consider it not only not a disgrace, but the most natural thing in the world, when they fall ill, to demand and receive free medical treatment without question or delay. So it has come to pass, that the majority of the population are tainted with the feeling, that it is no part of the duty of the head of a family to provide medical treatment to the extent of his means for himself

and the other members of his family. If it is pointed out to an artisan, or to many members of the shopkeeper and even of the middle classes of Englishmen, that the hospitals are intended for the poor—that is, for those only who are absolutely unable to give anything in return for the benefits they receive—such plain speaking is resented, and the admonisher is informed that every man has a right to resort to the hospital when ill, and to receive there every advantage it has to offer to applicants. If the question is still further pressed, and it is stated that those who are well able to pay the whole or a considerable part of the expenses connected with their medical treatment should contribute what they can, the usual answer is, that they always give something on Hospital Saturday or Hospital Sunday, and that this fact entitles them to the maximum benefit which the medical institutions have to offer. The consequence is, that to a large extent, individual independence is undermined, and that the majority of the people are coming to feel that the hospitals have been provided for their benefit, and that the needs and requirements of the poor are no concern of theirs whatever. In other words, an increasing number of people are being brought up on a wrong principle, and are thus led to forget the privilege, and to ignore the duty, of giving towards the support of those who are unable to help themselves. These facts are eloquently borne out by the information which is given in the chapter on Out-patient Departments. Those departments have assumed such proportions in England that they are little better than schools of pauperism. How long this state of affairs will be allowed to continue no one can tell ; but all must desire the spread of accurate information as to the customs and practices of other nations. Such extension of knowledge should do something, at any rate, to stop the retrograde courses of our population, and to recall each man to a sense of what is due to his own self-respect as well as to those whose circumstances are far poorer than his own.

There is another side to the question we have been considering which must not be lost sight of. Of late years, owing in a measure, it is believed, to the criticisms of those who desire to save their countrymen from the downward path on which they have entered in regard to medical relief, the leaders of the working population have expressed their desire to see the abolition of all the voluntary charities and the establishment of rate-supported hospitals in their stead. This agitation has assumed much greater proportions of late, despite the fact that some recent disclosures have

shown that rate-supported hospitals in this country, as elsewhere, may mean less efficiency, maladministration, less care for the comforts and feelings of the patients, an absence of all classification, and the association of the most abandoned and least worthy members of society with the innocent and honest poor. Anything more opposed to the best interests of the people than the substitution of State hospitals for the voluntary hospitals as they at present exist cannot be imagined.

Apart from the evils we have briefly referred to, there is a loss to the whole community in the lessened moral sense which State institutions create. The voluntary charities afford an opening for the encouragement and expression of the best of all human feelings—sympathy between man and man. They give to the rich an opening for the display of consideration towards the poor which is fruitful in results. They create a feeling of wide-spread sympathy with those who suffer, and impress upon the population the duty of almsgiving to an extent which no other charity can do. They constitute a neutral platform whereon all classes and sects can meet with unanimity and good feeling. They provide a field of labour wherein some of the most devoted and best members of society can cultivate the higher feelings of humanity and learn to bear their own sufferings and afflictions with resignation and patience.

All thoughtful men must therefore set their faces against any attempt to interfere with the voluntary hospitals of England. No doubt the system, as we shall see, presents many anomalies and some abuses which it would be well to avoid. To advocate reform is therefore to do a useful and necessary work, while to set on foot an agitation for abolition is to enter upon a course the end of which no man can see, and is one therefore to be withstood to the death. Englishmen have a reputation for common-sense. They are liable at times, no doubt, to act impulsively, and to set out upon crusades they are glad to abandon. We believe and hope, therefore, that the day is far distant when any serious effort will be made to substitute State hospitals for the noble medical charities scattered throughout England, charities which are at one and the same time the wonder of foreigners, and the just glory and pride of the British nation.

THE VOLUNTARY SYSTEM.

England is the home of the voluntary system. In no other country of the world, and in no other part of the British Empire does this system prevail to anything like the same extent as in the mother country. Every year more and more charities are founded on this system, and as a consequence many evils are created which it would have been well to avoid.

It has long been the custom in London to divide the great hospitals into two classes: (*a*) the endowed hospitals; and (*b*) the unendowed or voluntary hospitals. The endowed hospitals are three: St. Bartholomew's and St. Thomas's (known as the Royal Hospitals), and Guy's Hospital (Southwark). The combined income of the three endowed hospitals averages about £150,000 per annum, and they, collectively, have accommodation for something like 1,600 in-patients. To them are attached great medical schools deservedly famous throughout the world. They annually relieve upwards of 200,000 patients, of whom about 20,000 are in-patients, and the rest out-patients. The endowed hospitals possess large landed estates. Those of St. Bartholomew's, being chiefly situated in London and other centres of population, have considerably increased in value, whilst much of the land belonging to St. Thomas's and Guy's Hospitals has seriously diminished in value of late years, with the result that many beds have remained unoccupied for years at St. Thomas's, and whole wards have had to be closed at Guy's. No institutions have been subjected to severer criticism than the endowed hospitals; but to-day, with the exception of the drainage and the accommodation for the nurses at St. Bartholomew's, the accommodation for the resident staff at St. Thomas's Hospital, and the too economical administration of the commissariat and domestic departments at Guy's, the administration of the three endowed hospitals is undoubtedly good.

ENDOWED HOSPITALS.

The history of the two Royal Hospitals has been well told by Mr. William Gilbert, to whom we are indebted for many of the following particulars. Owing to the dissolution of the Religious Houses at the time of the Reformation, the poor were deprived of the charitable relief which had been bequeathed to them by the

picty of former ages. This was especially the case in London, where the indigent had to be supported by the private charity of the citizens, who were not only called upon to relieve their own poor, but myriads of others still more wretched, who, tempted by its great reputation for wealth, flocked into the city. By the dissolution of the Religious Houses, not only was much misery caused, but disorder and confusion were increased to such an extent that the administration of justice, sanguinary as it was in those days, could not entirely subdue them. The poverty and misery in the City of London at length reached such a height that in 1538 the Mayor and Commonalty of the City of London prayed that they might from henceforth have the "order, rule, government, and disposition of the hospitals or spitals commonly called St. Mary's Spital (Bethlem), St. Bartholomew's Spital, St. Thomas's Spital, and the New Abbey at Tower Hill, with the rents and revenues appertaining to the same, for the annual relief of the poor, needy, and sick persons." Nor did the worshipful body in any of their supplications attempt to conceal from the king the real state of the poor in the City of London, for they reminded him that the three great spitals named were "fownded of good devocōn by auneynt fathers, and endowed w^t great possessions and rents, onely for the relyeff comforte and ayde of the poore and indygent people not beyng hable to help theymselffs and not to the maynten'nce of preestes chanons and monks carnally lyvyng as they of late have doon, nothyng regardyng the myserable people lyeng in the streete, offendyng every clene person passyng by the way w^t theyre fylthye and nastye savors: Wherefore it may please yo^r mercyfull goodnes, ever enclyned to pytie and compassyon for the relyef of Crystes very images, creatyd to hys owne symlytude, to order and establyshe by graunte or otherwyse, by yo^r most vertuous and sage dyscrecōn, that the Mayre and hys brethren of yo^r cytye of *London* or suche other as shall stande w^t yo^r most gracious favo^r shall and may from hensfurth have the order rule dysposicōn and governance of all the sayd hospytalls and abbey."

The prayer of the Corporation was granted and the above-named spitals were placed under their management, but six years elapsed before any direct system of administration was organised. The first spital handed over to the civic authorities was that of St. Bartholomew's (which was for ever after to be styled "The House of the Poor in West Smithfield in the suburbs of the City of London, of King Henry the Eighth's foundation") in order, as Stow states,

that "there might be comfort to the prisoners, visitation to the sick, food to the hungry, drink to the thirsty, clothes to the sick, and sepulture to the dead."

A charter was not given to St. Thomas's Hospital until later, but all the endowments which had formerly belonged to the hospitals were purchased from the king by the City for the sum of £2,461 2s. 6d. St. Thomas's was not at first intended to be used as a hospital, but as an institution for the relief of the poor, similar to a modern workhouse. Thus the Letters Patent declared "that the said late hospital in Southwark from henceforth may and shall be a place and house for poor persons there to be relieved and supported, and shall be called the House of the Poor in Southwark, in the county of Surry (*sic*), near London, of our foundation."

For the first hundred years after the charters were granted the two Royal Hospitals nobly fulfilled the purposes for which they were established. It appears that the revenues were frequently too small to meet the outgoings, and to defray such deficiency the Corporation had the power to levy taxes for their support. The Corporation, by an Act (5 Philip and Mary), which on several occasions was put in force, had granted to them the profits of sundry offices for the use of the hospitals, especially duties on "the balance cōenlye called the Kinges beame, the beame of the still-yarde, the iron beame, the packinge, gawginge of wyne and ffyshe, garblinge, the small beame, and for weighinge of silkes, the measures or measurage of silkes, wollen clothe," etc. The revenues of St. Bartholomew's Hospital were supplemented by the tax levied on the citizens, and the Livery Companies were called upon to supply a large portion of the amount required. In the year 1548 an Act was passed by the City Council assessing the City Companies in the sum of five hundred marks to be paid annually to St. Bartholomew's Hospital. This levy was resisted by the Livery Companies in the year 1712, but the hospital authorities took Chancery proceedings which resulted in a decree in their favour, which exists to the present day. In 1547 the Common Council made a grant of half a fifteenth to be assessed on the citizens and inhabitants of the Metropolis in support of the hospital.

On the thirteenth day of October in the eleventh year of Elizabeth's reign the Lord Mayor issued the following order:—"On the Quenes Majesties behalf we straightlie charge and commande you that ye forthwith callenge before you your deputie constables bedell and bedelles of your saide warde, doe give unto them

straightlie in charge that they doe make due searche from time to time betwene this and the Feaste of all Saintes next cominge for all such poore people sicke and diseased, and having no place to dwell in of their owne, or shal be founde lying under stalles or at mens dores within your said warde. And such as they finde as abovesaide forthwith to cause to be hadd and conveyed to one of the Hospitallles of Saint *Bartholomew* in *West Smithfelde* or of Saint *Thomas* Hospitall in *Southwarke*, where we have given order they shalbe received in avoidinge of further daunger of infection that might happen and grow by their lying in the fields. faile you not hereof as you will answer to the contrairie at your perrill. Given at the Guildhall of the Citty, of *London* the xiiiith daie of *October* above written.

It appears that at the time St. Bartholomew's Hospital received its charter its endowment amounted to about £666 per annum, half of which sum was bestowed by the king from confiscated ecclesiastical property and the other half was derived from endowments and landed property given by the Corporation of the City of London. Any deficiency in its funds was made good by the voluntary contributions of the citizens.

At the latter end of the reign of Edward VI, the revenue of St. Thomas's Hospital appears to have been £3,291 per annum, of which some £2,914 was contributed from the private purses of the citizens. At this time the population of the City did not exceed one hundred thousand people, of whom thirty thousand were more or less dependent on charitable relief. As the population increased so did the value of the hospital endowments, owing to the fact that the greater portion of them consisted of lands or houses in the City or suburbs. Thus, according to Stow, in 1750 the expenditure of the Royal Hospitals increased to £10,000 per annum. The gross value of the endowments at the time of Edward VI is stated to have been £50,000, and at the present time (if the value of the hospitals themselves and the ground they stand on, together with the reversionary value of the leases about to fall in, be taken into consideration) the total value in round numbers is stated to be five millions of pounds sterling. Originally the blind and impotent, the paralysed, and pregnant women were sent to St. Bartholomew's Hospital, the curable sick being taken to St. Thomas's Hospital; but, at the present time, both St. Bartholomew's and St. Thomas's confine their attention entirely to the curable sick. The land and buildings at St. Bartholomew's

Hospital devoted to the Medical School are valued at one hundred thousand pounds.

Guy's Hospital was founded by Thomas Guy in 1724. By his will he left the greater part of his property to the hospital for the reception of "four hundred poor persons or upwards, labouring under any distempers, infirmities, or disorders thought capable of relief by Physic or Surgery, but who by reason of the small hopes there may be of their cure, or the length of time which for the purpose may be required or thought necessary are or may be adjudged or called Incurable, and, as such, not proper objects to be received into or continued in the present Hospital of *St. Thomas* or other Hospitals, in and by which no provision has been made for distempers deemed or called Incurable, and for Lunaticks, adjudged or called as aforesaid Incurables, not exceeding Twenty in number at any one time; such poor persons to be chosen and appointed out of such patients and persons who shall be discharged out of the Hospital of *St. Thomas* or *Bethlehem*, or other Hospitals on account of the small hopes of their cure or, the great length of time for the purpose required or thought necessary, or on such or any other account adjudged and called Incurable and not fit to be continued in the said Hospital of *St. Thomas*, or *Bethlehem*, or other Hospital." He further ordered that his executors and trustees should "provide suitable and proper diet, Physic, and all other necessaries for the maintenance, relief, or cure of such sick persons during their lives, or for so long time as my said Executors and Trustees shall think fit to continue them under their care in the said intended Hospital. . . . If my said Executors and Trustees shall not find cause or shall on any account whatsoever not think fit to keep all or great part of the beds and wards in the said Hospital filled and supplied with sick persons deemed or called Incurable, as aforesaid; it shall and may be lawful for them to cause any number of the said beds or wards to be filled and made use of in like manner and with like patients as the beds in the Hospital of *St. Thomas* are ordinarily used."

The management of the two Royal Hospitals is vested in the governors, any one being eligible for election, at the discretion of the Court of Governors, who gives a donation of not less than fifty guineas to *St. Thomas's*; the qualifications of a governor at *St. Bartholomew's* being £100, or £50 if the governor be "named." The governors of each of the Royal Hospitals meet once a quarter, and also hold an annual court. They elect the House Committee,

or Grand Committee, which meets once a month, and the hospital is under the management of the treasurer and almoners, who meet weekly.

Guy's Hospital is managed by a body of sixty governors, originally appointed under Guy's will, who have ever since been self-elected. When a vacancy occurs by death or from any other cause, the governors may nominate any person whom they may select to fill the vacancy.

It will thus be seen that endowed hospitals, though maintained out of charitable funds, have practically no part in the voluntary system of hospital administration as generally understood.

THE VOLUNTARY HOSPITALS.

The unendowed or voluntary hospitals are those which are dependent in whole or in part upon the voluntary contributions of the charitable. All the charitable hospitals situated in the United Kingdom of Great Britain and Ireland may be included in this system, as, although many of them possess large invested funds, all depend to a greater or less extent upon voluntary contributions for their maintenance. Of course there are many varieties of the voluntary system. Some institutions have been managed on the principle of investing all legacies and donations of £100 and upwards as they have been received, so that they now have a large endowed income. The extent of this will be better realised by a reference to Chapter VII, which contains much detailed information on this head. Others again, of more recent date, have little or no invested property, and the whole of the income, without any reservation whatever, is expended in relief during the year in which it is received. There are also voluntary hospitals which are maintained entirely, or almost entirely, by the liberality of one or two people. Others again were originally founded by a benevolent donor, who defrayed out of his own pocket the entire initial cost for buildings and site, but in most of these cases the institutions are dependent for their maintenance upon the annual contributions they receive from the public. Another class of hospitals worked under this system derive their supplies from sections of the community or religious bodies. To this class belong the Jewish hospitals, some of which are entirely maintained by the Jewish community, and institutions like the Presbyterian and Methodist hos-

pitals of the United States, the whole revenues of which are supplied by the Presbyterian or Methodist churches.

The voluntary system has undergone considerable changes during the last half-century. Originally, the management was centred in a few active spirits who took a pride in particular charities, and devoted the greater part of their leisure and much of their substance to the maintenance of those institutions. Thus, certain families became identified with particular hospitals, and to this day may be seen a record of their gifts and bequests on the boards which are suspended in the Board Rooms and on the staircases in many of the older institutions. Gradually, however, as more people have become interested in the hospital system, considerable competition has arisen for seats on the Committees of Management, with the result that the number of subscribers has very largely increased, although the income has not grown in proportion, because the individual contributions have become smaller owing to the fact that particular gifts have become less and less identified with a limited number of charitable people. This result is due, in part, to the establishment of the Hospital Sunday and the Hospital Saturday Funds, which have excited a much wider interest in the work of hospitals, and have led to the election of representatives of all classes of the community upon the Boards of Management. This is particularly noticeable in the case of the provincial institutions, where working-class representation is becoming more and more the rule than formerly was the case.

Regarding the system as a whole, it presents many anomalies, due in no small degree to the peculiarities and habits of the people. Thus, in England the voluntary system may be said to exist without any organised control whatever. That is to say, any person may establish a hospital for the relief of cases of any special disease or of all diseases, at any time, in any place, or under any conditions which he may choose. There is no system of inspection, no controlling authority with power to prevent the abuses of these charities, or their establishment in places where the needs of the population do not demand the opening of any such institution. It is true, of course, that the best hospitals have obtained a corporate existence by Act of Parliament, or by Royal Charter, or as benevolent institutions established either under the Friendly Societies Act, or, more commonly, under the philanthropic clauses of the Companies Limited Liability Acts. In America, on the other hand, although voluntary charities exist to a considerable extent,

they are all organised, being incorporated under legislative authority by the enactment of the Legislature of the State in which they are situated. In a majority of the States there is a Charities Board which regulates these establishments to a greater or less extent, and exercises certain powers and authority over them.

In Ireland, the hospitals in Dublin are placed under the supervision of a Board of Superintendence appointed by the Act 19 & 20 Vict., c. 110. This Board makes an annual inspection and issues a report which is presented to both Houses of Parliament every year. For some reason, not easily explained, the practical value of this supervision seems to be small, and the Irish hospitals are a long way behind those to be met with in England and Scotland. This is the more remarkable because, although the Dublin hospitals are mainly dependent on voluntary contributions, most of them receive Government grants, a sum of £15,853 having been given to nine Dublin hospitals in the year ending the 31st of March, 1890. The average cost per bed occupied in the Irish hospitals is considerably less than it is in England, and the relative inefficiency of the former institutions may be due in a measure to the fact that the economy practised prevents the development of necessary administrative changes which would add materially to the hospitals' value and efficiency.

Generally, it may be said that the English hospitals are voluntary but unorganised, whilst those in America are voluntary and organised, and those in Ireland, though voluntary and organised, are in practice disorganised.

The managers of the voluntary hospitals are, with slight modifications, everywhere elected under the same system. Only subscribers and donors of a certain amount, varying from one guinea per annum and a donation of ten pounds to an annual subscription of five guineas and a donation of fifty guineas, become governors of the institution. These governors meet annually, and in many cases quarterly, the chief business at the annual meeting being to elect a president, vice-presidents, and a committee, commonly consisting of thirty-one members, from among whom finance, house, drug, and other committees are chosen. The entire control of these institutions is usually vested in a committee of management, who, with some rare exceptions, have authority to appoint all the officers except the members of the honorary medical staff, who are usually elected either by the whole body of governors or by a special election committee of one hundred governors selected by ballot for the purpose.

It is not necessary to enter into further details here, as the system of management and the differences which prevail are fully explained in another chapter of the present volume. It may be said that the system of government has worked on the whole satisfactorily, although at the present time, especially where an institution has the reputation of being well managed, much difficulty is experienced in inducing a quorum of the governors to attend the annual meeting in order to elect the committees and transact the routine business. The late Canon Miller, D.D., the founder of Hospital Sunday, said, with much truth and some humour, that it was hopeless to expect a full meeting of governors at any hospital unless the managers were able to provide for their delectation an election, or a rumpus, or some subject for discussion which excited much feeling and great differences of opinion at the date of its introduction. The difficulty in regard to the annual meeting has become so great in some cases that—as, for example, at the Canterbury Hospital—the committee have proposed to abolish the annual meeting, because they find it impossible to secure a quorum to transact the routine business.

A further feature in connection with the management of voluntary hospitals, and one which has tended greatly to maintain their efficient working, is the selection of a certain number of governors to act as house visitors during each year. A rota of the house visitors is kept, and it is customary for two of them to visit the hospital together either in the daytime or at night, and to make a thorough inspection of the whole establishment. They are at liberty to question any of the patients or staff, and it is their duty to enter in a report-book for the information of the Board of Management anything which they find out of order, or to direct attention to any point or matter which in their judgment demands an inquiry or alteration. Not only have the house visitors tended much to maintain the efficiency of the administration, but no small advantage has often accrued to the hospitals from the fact that the house visitor is gradually led to take an increasing interest in the welfare of the institution and so to qualify as a useful member of the Managing Committee.

THE INTERMEDIATE SYSTEM.

There is an intermediate system, which combines in a measure the voluntary and the governmental. Instances of this system

exist in India, where it has not infrequently happened that native princes and merchants have given large sums to provide a hospital or dispensary, the maintenance of which is afterwards secured by grants from the Government. In the same way, in the British Colonies, and especially in the larger ones, it is a common practice for the Government to make good any deficiency which may arise from year to year. Again, many instances might be quoted in the history of the world, where a hospital originally supported on the voluntary system with adequate funds provided by the revenues derived from the original endowment, has gradually become hopelessly involved, owing to the increase in the population resulting in increasing demands upon its resources. Where this has occurred, the Government has often stepped in, first of all with temporary assistance or a special grant, to be followed later by further and larger contributions from State funds with representation in the management, and ultimately by the practical taking over of the institution and the absorption of its revenues by the State. Institutions of this kind will be found at Malta, where the whole of the hospitals, formerly maintained entirely out of charitable funds, have now been taken over by the Government. The Government provides the larger portion of the funds, but still publishes a separate account of the private estate of each of the hospitals.

The most notable example is that of the Maggiore Hospital at Milan, an account of the origin, development, and present position of which enormous undertaking cannot fail to interest. It was originally founded by Duke Francesco Sforza, who gave a palace, a palace square, and several houses, "as an act of acknowledgment to Almighty God for innumerable benefits received by him during the whole of his life, to be devoted to the relief of the poor and sick for ever." Many other charitable people contributed large sums to this foundation, and so its extent and revenues largely increased. Although the first stone was laid by the Ducal founder on the first of April 1456, the whole of the buildings were not completed till 1464, at which time the hospital contained about five hundred beds. Duke Sforza appointed twenty-four citizens of Milan, whom he termed deputies, to manage the property for the hospital. These deputies were subsequently named the Chapter, and ultimately the Council. At the present time this Council is composed of a president, a vice-president, and eight managers.

The hospital seems to have managed to make both ends meet until 1763, when the Chapter were in such straits that they had the

greatest difficulty to avoid closing the hospital, the patients being in want of almost everything. To relieve the pressure the Holy See suspended for ten years the legacies for worship in favour of the hospital funds. Things did not improve, however, and a Congregation of Charity was established by decree in 1807, which called on the communes, but in vain, to supply the necessities of the hospital. The Government took up the matter in 1811, and, having rejected proposals to exempt the hospital from taxes, legacy duty, and legal tolls, issued instructions that for the future chronic cases, prostitutes, persons suffering from scab, and the majority of cases of syphilis should be refused admission, and that the baths in connection with the hospital should be suppressed. In 1866 the Government determined that chronic cases, scab, venereal cases, and those suffering from contagious disorders must be provided for at the expense of the communes. It has thus come to pass that, though the Maggiori Hospital was originally established as a private corporation, and though its estates are enormous, yet, owing to the growth of the city of Milan, and to the fact that the hospital has been charged with the duty of ministering to the greater portion of the sick in the city, the financial pressure has resulted in an appeal, first to the Holy See and subsequently to the Government, which has entirely revolutionised the system of management, and converted a voluntary hospital into what is now for practical purposes a Government institution.

THE GOVERNMENT, STATE, AND MUNICIPAL SYSTEM.

In order to understand how this system arose it will be necessary to go back to the condition of affairs in the Middle Ages. In most European countries there was a succession of panics due to the introduction of the plague and to outbreaks of other epidemic diseases of a contagious character, which decimated the population. Italy, from its situation and circumstances, affords a good illustration of the development of the system. According to Dr. Charles Zucchi, the chief physician to the hospital institutions in Milan, in the fourteenth century the nature of contagion and the infectious character of the plague were recognised in Italy, and this led to attempts to isolate the sick and to disinfect persons and objects. In the early part of that century the statutes of Gactius enacted that the *domini judices* were to choose upright and zealous men, and to charge them with the duty of superintending the sanitary state

of their fellow-citizens. A certain number of houses were allocated to each of these inspectors, who, on the appearance of the plague in any town, made daily inspections of the houses assigned to them. Where they met with sick people it was their duty to take precautions, and to institute a system of isolation and disinfection over people, articles, and buildings. Failure to comply with the orders issued entailed penalties on the law-breakers. No one was allowed to enter the cities by land or sea from any district where the plague was rife. If a vessel attempted to avoid the quarantine, and plague-stricken patients were found on board, it was immediately burnt. Huts were erected at the charge of the State outside the city walls for the treatment of infected patients. On the 17th of January 1374 Barnabo Visconti promulgated a decree to the Podestat of Reggio on the approach of the plague. It provided that "every person attacked shall immediately leave the city, or camp, or burgh, in which he may be, and go to the country, in huts or in the woods, until he either dies or is set free. Servants shall wait ten days after anyone's death before they consort with anybody whatever. The priests of the parish churches shall visit the sick and see what ails them, and shall notify it forthwith to the appointed inquisitors, under penalty of burning." Other rules provided against those who should have imported the disease elsewhere, or have assisted the sick without being called upon to do so, under pain of death or confiscation of property. The thatched or plank huts referred to resembled modern barrack hospitals in situation and construction. They were all detached and crowded together in an open space far removed from the towns.

When the plague desolated Venice in 1485 a special permanent magistracy, composed of the three *provediteurs*, were appointed and charged with the duty of suggesting and carrying into effect everything which they thought suitable to promote the public health. Similar preventive measures were subsequently adopted in the fourteenth and fifteenth centuries by most European States.

Italy.

By Royal Decree of the 5th of September 1806, a civil sanitary administration was organised in Italy, with the objects of establishing (*a*) a system of medical police, and (*b*) adequate provision for the public health. Three Directors had charge of the medical police in each of the three universities in Italy (Pavia, Padua, and Bologna), and were placed under the control of the Minister of the Interior.

The Directors were assisted in the discharge of their duties by Departmental Health Commissions, which were composed of all the professors of the medical faculty of the respective universities, together with two physicians in practice, one surgeon, and one pharmacist residing in the commune where the Directors were located. The Chancellors of the three universities acted as secretaries. The Directors gave authority for the free practice of medicine, surgery, and pharmacy; the Departmental Health Commissioners authorised the practice of phlebotomy and obstetrics, and the retail sale of drugs and other articles which were liable to medical inspection. The Directors and Commissioners had to superintend the practice of those engaged in these several professions and to supervise the sale of drugs. They were further charged with the duty of giving an opinion on medico-legal questions, and on every other subject having reference to the foregoing professions, which could be of interest to the public administration, so often as they were required to do so by the political and judicial authorities. Each Director received a small pecuniary indemnity and a fixed sum for office expenses.

The same Decree regulated the practice of all branches of medicine, and provided for the inspection of pharmacies. The authorities charged with the public health of the whole kingdom were:—(1) A central magistracy residing in the capital, composed of five persons nominated by the king, and working under the direction of the Minister of the Interior, to whom it was subject; (2) a departmental commission in every chief town, composed of the prefect as president, two chief councillors of the prefecture, the chief magistrate of the community, and the physician, the surgeon, and the dispenser, and having the duty of inspection, and of correspondence with the Central Council, and with other departmental commissions, and the direction of three communal deputations, who were composed of the podestat or mayor, and two town councillors. The magistrates and the departmental commissions exercised judicial powers by inflicting penalties. The doctors, and even the communal deputies, were punished if they failed to give notice of infectious cases. The same organisation had charge of vaccination throughout the country. Thus an autonomous central administration was established by law, with ramifications all over the kingdom, and uniting each commune, district, and province with the capital, where the Minister of the Interior presided over the Central Council of Health for the whole kingdom. Further

statutes regulating the health service were published on the 30th of October 1837 and the 24th of July 1848. These established in the capital a supreme central council, and in the provinces provincial councils, which had to inspect the hospitals, prisons, and other public institutions with the exception of the military hospitals, and to popularise and extend the system of vaccination.

At the present time the sanitary administration of Italy is divided between the central authority (the Minister of the Interior), the provincial authorities (the Prefects), the *arrondissement* authorities (the Sub-Prefects), and the communal authorities (the Syndics), with the assistance of a Superior Council of Health, and provincial, sanitary, and *arrondissement* councils, which have power to appoint commissions. So it has come to pass that the necessity of providing precautions against infection in times of epidemics has resulted in bringing the whole of the hospitals and kindred institutions in Italy under the direct supervision of the Government.

British Colonies.

Government hospitals have also been created in another way, the British Colonies affording the best illustration of this method. So soon as a new country had to be opened up, the British Government, on taking possession, would experience the necessity of providing hospitals and medical aid to civilian officials of the Government, their wives and families, from the date when they first took over the administration of the country. The opening of these hospitals attracts the attention of the native population, who gradually become more and more anxious for treatment, and this leads to a further development of the system by the establishment of special wards for the treatment of natives, or of separate hospitals for the same purpose. In many of the British Colonies it will be found that, although the hospitals are Governmental, contributions are received in many cases from charitable people towards their support, and that a large number of them admit patients on payment.

We have thus seen that in some cases an institution established on the voluntary system is liable, from special circumstances, to lose its original character by becoming a Government hospital; and again, that a hospital originally established by the Government for its own purposes may gradually embrace many of the attributes of a voluntary hospital by deriving a portion of its revenues from some one or other of the sources common to the voluntary system.

Europe in the Middle Ages.

Finally, at the commencement of the period known as the Middle Ages, there was no proper provision whatever for the care and the cure of the sick poor. Arising out of the Crusades, many pious foundations for the relief of the sick were founded throughout Europe, and from them have sprung in reality all the later developments. For many years this beneficent work was left entirely to Christian corporations, who considered the relief of the suffering to be a sacred duty. Later on, as the public sense became aroused to the necessity, on public grounds, of providing accommodation for the sick, various municipalities and corporations began to recognise the duty which devolved upon them in this respect, and so gradually extended and improved the hospital system. The medical profession was in those days in a very crude condition owing to the absence of universities and schools in connection with hospitals where students could be trained and taught the art of medicine and surgery. Originally the chief desire seems to have been to provide adequate relief for the poor—that is, for the pauper population, and many institutions were erected with this object, to which the sick and infirm were also admitted. In the eighteenth century the value of the healing art became widely recognised, and clinics, universities, and schools were established for the special purpose of providing an adequate system of training for medical men. This resulted in the establishment of hospitals for the sick, in contradistinction to infirmaries for the relief and care of the poor. The more medical science and knowledge of disease developed, the more did the State concern itself with the sick and infirm. So it gradually came to pass that society recognised its duty towards the sick, and the necessity of classifying disease resulted in the erection and establishment of special hospitals for the treatment of particular maladies. The State has everywhere limited its interference to the necessity of securing adequate accommodation for the sick population of all classes. Where private charity has proved sufficient for the needs of the community, there State interference is either absent, or only present to a very limited extent. On the other hand, those countries which have displayed the least spontaneous liberality in the matter of public charities exhibit the maximum of State control, relief, and institutions.

Speaking generally, it will be found that, as far as possible, the

State has confined itself, in the matter of hospitals and infirmaries, to securing adequate provision for the foundation and maintenance out of State funds of universities and hospitals for medical instruction. In a few cases State aid has been contributed for local interests, but local jealousies have produced a feeling of resistance to State interference, which has resulted in the municipalities and kindred authorities providing out of local funds all that was needful for the care and cure of the sick, insane, and infirm.

Norway and Sweden.

We believe the most perfect system of State relief, and the one which has been least abused in practice, and hence may be regarded as almost ideally perfect, is the system which prevails in Norway and Sweden. The State hospital at Christiania has been established for the relief of the sick from all parts of the country. Here all the medical students pursue their studies and are taught the mysteries of their art, and to it is attached the national university. In case of any deficiency in the funds, the amount is annually made up by the Government. Infectious diseases, including small-pox, cholera, and scarlet fever, though admitted originally, are not now received into this institution. In connection with the hospital is a bathing establishment of considerable extent, which is used by the public at large, and which produces a goodly proportion of the income of the hospital. The rest of the income is derived mainly from the payments made by the patients, and the institution is almost entirely self-supporting. As, however, it is regarded as a Government institution, the directors annually submit, for the consideration and approval of Parliament, a budget in accordance with a calculation based upon the number of patients, the number of beds occupied, and the daily payments of each patient during the previous year. Should any difference exist between the estimated expenditure and the estimated income from patients' payments, baths, etc., such deficiency is voted annually by the National Parliament.

We have said that in practice this system of State interference is almost ideally perfect. Our reason for believing this to be the case is mainly founded on the knowledge that thrift is the main-spring which actuates the management of this institution. It is a sound maxim, in the force of which the Swedish Government fully believes, that, for the most part, every inhabitant of the country can pay something when ill towards the expense of the medical relief and treatment which he may require. Thus, every inmate in the

Christiania hospital becomes a paying patient. How is this managed? Are we to assume that there are no poor to be found in Sweden and Norway? Not at all; but the Government recognises the economy of working the voluntary charities and the poor-law charities by means of the same central administration. In this way the Government, with the poor-law authorities, enters into an engagement with the directors of the State hospital by which, on payment of a certain fixed sum, the poor-law cases can be sent for treatment at the institution. It has been stated already that a medical school is attached to the Christiania hospital, and an agreement with the poor-law authorities has been entered into whereby the medical staff may always be provided with sufficient material for the clinical instruction of the students. In other words, with the exception of poor-law cases, no paying patient is subjected to any examination but such as will enable his medical attendant to diagnose and treat successfully the disease from which he is suffering.

Three classes of paying patients are admitted. First, there are the lowest or poor-law cases, who occupy wards having from four to ten beds, and who receive the plainest diet and share one common mess. The second class occupy wards containing two, or at most, three beds, and receive better fare. The third class, being the highest grade of paying patients, have each separate rooms, are allowed a most liberal diet, and receive special nursing and extra attendance. The scale of payment is as follows:—First class, three shillings per diem; second class, three shillings and eightpence per diem; third class, six shillings and eightpence per diem.

The whole of the arrangements at this hospital are excellent. It is an interesting fact, and shows the advantage of harmonising the working of all institutions which have for their object the relief of the suffering, that the efforts of the Government of Norway and Sweden have resulted in the establishment of a national hospital, where one hundred and thirty beds are provided for poor-law cases, in addition to one hundred and ten beds for paying patients. This plan has enabled the Government to relieve the sick paupers free of cost to the State. In other words, the State hospital of Christiania is practically self-supporting.

Denmark.

The Government is taking the initiative for the foundation of hospitals in the modern acceptation of that term. As in Italy, there is a very complete system of health administration through-

out the country, and this has enabled the central government to foster communal independence, so as to secure that the initiative in the erection of new hospitals shall be taken by the great communes themselves, although the central authority sometimes instigates the movement through the local State doctor, who is an officer of the Supreme Council of Health.

Russia.

The same may be said in a great measure of the State action in Russia, where most of the hospitals and asylums are now in the hands of the municipal authorities. How thoroughly this is the case is proved by the knowledge that, although repeated applications to the Imperial Government through the British Embassy failed to produce any information or plans of these institutions in Russia, a personal visit enabled the author, after a conference with the burgomasters, to secure a complete set of plans and much information of general interest.

Belgium.

Although the State system of hospital administration universally prevails throughout Belgium, the main principle underlying it is one of decentralisation. Every commune has the control over its hospitals and asylums; the communal authority appoints a Commission charged with the duty of administering these institutions. As a general rule this Commission consists of five members, to whom is entrusted the supreme supervision of all medical institutions within the commune. The actual direction of each hospital or asylum is delegated to one individual, known as the Director, who is responsible to the Commission alone for his actions. An exception is made at Audenarde, where the Director is replaced by a member of the Commission, who is detailed to fulfil the duties for a month at a time. All the members of the Commission take this work in rotation, and are there known by the title of *Commissaire du Mois*. Occasionally, as at L'Hospice des Sœurs de la Charité at Tournai, the direction of the institution is entrusted to a Lady Superintendent assisted by a staff of sisters. Whatever the actual arrangement at any Government hospital may be, the principle is the same for all alike, the management being entrusted to one individual, who acts as Director, subject to the *Commission des Hospices Civiles*. The Belgian system enables the people who elect the Legislative Assembly to exercise

a certain control, because the Legislature can interfere with their economy and administration by bringing pressure to bear upon the communal councils. In Belgium, too, private foundations, though the outcome of personal munificence, fall under the common system, and there is no case of a hospital supported by voluntary contributions where the management is directly under the control of the subscribers.

Switzerland.

In Switzerland the Belgian system prevails to a certain extent, although there, owing to the difference in the constitution of the central government, the administration of the cantonal hospitals is confined to a commission of members, two-thirds of whom are usually appointed by the Grand Council and one-third by the State. At Geneva the hospitals are administered by a commission which consists not only of State and communal representatives, but of representatives appointed by the town, in the relative proportions of ten to seven. In addition to the communal hospitals, many institutions have been established by private individuals. Most of these admit paying patients, and are maintained without State support or interference of any kind.





CHAPTER V.

POOR LAW INFIRMARIES.

HISTORICAL.



THE Poor Law Infirmary of to-day should differ but little in general principles from the ordinary general infirmary, but the circumstances connected with it tend to give it certain special features which are not commonly met with in general hospitals. It must be borne in mind that paupers are eligible for admission into any poor-law institution only by reason of their destitution, and every destitute person is chargeable to the poor-rates, and must be relieved by the guardians of the poor according to the necessities of the case. A poor-law infirmary is simply a workhouse, or a portion of a workhouse, set apart for the reception and treatment of those sick paupers whom the medical officer may decide shall be placed there. Hence the individual pauper has no claim for admission to the infirmary, nor, indeed, to any particular department of the workhouse. The law permits of the relief—medical or otherwise—of certain cases of destitution outside the workhouses; but the most economical, and generally the best, way of affording relief in the case of the sick is by receiving them into the sick wards of the workhouse or into the poor-law infirmary.

The Poor Law Commissioners, in their General Consolidated Order of 1847, after directing (Art. 98) that the paupers in any workhouse should be classified into seven distinct classes—viz., the infirm of each sex, the able-bodied above fifteen years of age of each sex, the children between the ages of seven and fifteen years of each sex, and the infants under seven years of age—ordered (Art. 99 [1]) that

the guardians, after consulting with the medical officer of the workhouse, should make such arrangements as they may deem necessary with regard to persons labouring under any disease of body or mind. Provision was likewise made (Art. 91) for the medical examination of every pauper on admission to any workhouse, and (Art. 92) for his location in an appropriate ward should he be suffering from any bodily or mental ailment. It was further directed (Art. 208 [14]) that if any pauper already resident in the workhouse should fall sick, it should be the duty of the master of the workhouse to send for the medical officer, and to take care that all sick and insane paupers are duly visited by the medical officer, and are provided with such medicines and attendance, diet, and other necessaries, as the medical officer or the guardians direct, and to apprise the nearest relation in the workhouse of the sickness of any pauper, and, in the case of dangerous sickness, to send for the chaplain, and any relative or friend of the pauper, resident within a reasonable distance, whom the pauper may desire to see. The master of the workhouse is likewise required (Art. 208 [15]) to take care that no pauper at the approach of death shall be left unattended, either during the day or the night. As regarded the immediate attendance on the sick, it was laid down (Art. 99 [4] & [5]) that any able-bodied woman or girl might be employed constantly or occasionally in any of the female sick wards; and any "infirm" woman whom the master of the workhouse might deem fit to perform any of the duties of a nurse might be so employed in the female sick wards; any male "infirm" inmate whom the master might deem fit being likewise employed in the male sick wards. There was thus, even so long ago as 1847, a distinct endeavour to ensure for the sick indoor poor an amount of attention which had previously been wholly non-existent. As regarded the accommodation for the sick, the Poor Law Commissioners, at a still earlier date, had caused model plans for workhouses of various sizes to be prepared and furnished to the newly-constituted Boards of Guardians, for their guidance in the arrangement of the then contemplated workhouses, and from these model plans, which are reproduced in the earliest annual reports of the Commissioners, it will be found that special wards were recommended for the use exclusively of the sick, as well as for lying-in cases.

These sick wards, as may be expected, were of a very primitive kind, consisting, as they did, for a workhouse of 500 inmates, of only two ordinary wards—one on the male side and the other on

the female side—each containing five beds and affording not quite 300 cubic feet of air-space to each patient. A water-closet opened out of each ward, but beyond this no special conveniences whatever were arranged for the nursing and for otherwise attending to the wants of the sick. Deficient and primitive, however, as these arrangements were in every important element, when judged by the experience of the present day, they were a vast improvement upon what had previously been available; and the fact that certain special accommodation was thus prescribed as necessary in every new workhouse, and that certain of the inmates were permitted to be specially appointed to act as nurses in the sick wards, was an important and distinct advance upon the pre-existing arrangements. Later on, as experience in the use of the workhouse as a means of dealing with pauperism increased, the wards that had been assigned to the sick in many of the workhouses began to be required for other classes. Moreover, the sympathies of the public generally called for better accommodation for those whom illness had brought, or had helped to bring, to destitution, and it was seen that greater care for the sick tended to facilitate and expedite recovery. It thus came about that, as increased accommodation became necessary, a separate building for the sick, who, moreover, had become far more numerous in proportion to the other indoor poor than was at first contemplated, was very generally provided, and the infirmary of the union or parish workhouse gradually became an institution of itself, and more or less self-contained according to its size and to its importance relatively to the rest of the accommodation for the indoor poor.

The general condition of these early poor-law infirmaries, managed by boards of guardians elected without any regard to their individual knowledge of hospital management even as understood at that period, and supervised by a medical officer in general practice, whose emoluments for his official services were of the most meagre description, and who was often compelled to adopt a most parsimonious system of administration—he was often required to provide all, or nearly all, the drugs which he considered necessary for the patients—was very far from satisfactory even in those days when the general public were so much less acquainted with the subject than is the case now. Between the years 1855 and 1860, however, circumstances occurred which directed public attention specially to hospitals and the care and treatment of the sick. The terrible experiences of the Crimean war in regard to the sick and

wounded troops, both in the Balaclava and the Scutari hospitals, were fresh in the minds of the public, and the reports of the Royal Commissioners who were sent out from England to investigate the health-conditions of the troops, as well as the writings of Miss Florence Nightingale upon hospital management and nursing, which were published about this time, instructed the public as to many important matters of hospital arrangement and management of which they were previously wholly ignorant, and tended to induce a certain amount of interest in hospitals and those who occupied them, which did not previously exist. A Commission had been appointed to inquire into the sanitary condition of the barracks and military hospitals, and, under the auspices of the Medical Department of the Privy Council, a valuable report by two eminent medical men—Dr. J. S. Bristowe and Mr. Timothy Holmes—upon the hospitals of the United Kingdom was published in 1863. The whole subject, in fact, of hospitals and the care of the sick was constantly before the public in one form or another, and became somewhat popular, and accordingly workhouse hospitals and the condition of the indoor sick poor gradually came under observation.

About this time certain complaints were made public respecting the treatment of patients in a particular workhouse infirmary, and allegations of the existence of similar conditions in other poor-law infirmaries being freely made, the proprietors of *The Lancet* newspaper, in April 1865, appointed a commission, consisting of Mr. Ernest Hart, the late Dr. Ainstie, and the late Mr. William Carr, to visit and report upon the state of the infirmaries of many provincial and all the metropolitan workhouses. The reports of these gentlemen duly appeared in the columns of the journal they represented, and gave so startling an account of the condition of the sick poor in the infirmaries visited, that much public indignation was aroused, and the Government of the day promptly ordered an official investigation to be made by two of their most experienced inspectors, Dr. Edward Smith, F.R.S., and Mr. H. B. Farnall, C.B. This again led to the appointment of a committee of experts to consider and report upon the amount of cubic space that ought to be afforded to each inmate—whether sick, infirm, or in bodily health—in the poor-law buildings, and their report was published as a Blue-book in 1867. These several movements culminated in an important Act of Parliament, introduced by Mr. Gathorne Hardy (now Viscount Cranbrook), who was then President of the Poor Law Board, for amending the poor-laws of the metropolis, by enacting,

inter alia, that the sick should be removed from the workhouses into separate infirmaries. As a result of this measure, nearly all the Metropolitan Poor Law Authorities have now erected hospitals for the special treatment of the indoor sick poor of London, and during the last twenty years, accommodation for some 14,000 patients has been provided in infirmary buildings specially designed for the purpose. Nearly every one of these institutions has been so arranged as to be entirely self-contained and independent of the workhouse proper. They usually include suitable apartments for the resident medical staff, and are under the immediate management of a medical superintendent. Formerly, all the officers were subordinate to the workhouse master. The nursing arrangements, moreover, in these modern infirmaries, though in many instances far from what could be wished, are a vast improvement upon the old arrangements, there being usually special apartments for a staff of trained nurses; and in some infirmaries a separate nurses' home, under the management of a lady superintendent, has been provided.

The example thus set in London has been largely followed in the more populous provincial towns, where similar poor-law infirmaries, more or less completely separated from the workhouses of the unions to which they belong, have been provided for the sick poor. This is the case, for example, at Manchester, Chorlton, Salford, Birmingham, Leeds, Croydon, etc. But in a large majority of the provincial unions the poor-law infirmary is only of moderate size, and consequently, for reasons of economy, forms part of the workhouse establishment.

Except in the case of a few small rural workhouses, erected some forty or more years ago, the infirmary is now a detached building under the immediate charge of a nurse, who is responsible for its management primarily to the master and matron of the workhouse. The medical officer is non-resident, and usually in private practice. He visits the workhouse daily, or at such other times as is requisite, and a record of his visits has to be kept in the medical relief-book, in which also has to be recorded, for each case, the dates of admission and discharge, the nature of the disease and its termination, together with particulars of diet and extras which may be prescribed. The medical officer is empowered to frame dietaries for the sick in as many different scales as he may deem expedient (Art. 207 [9] of the General Consolidated Order, 1847), and he has large discretionary powers in regard to extras, which are to be entered also upon the patient's bed-card. He is also required

(Art. 207 [7]) to report to the guardians, whenever occasion may arise, any defects which he may observe in the arrangements of the infirmary, and in the performance of their duties by the nurses of the sick. And he is further required to answer specifically, once every six months, the following printed questions in his report-book, which is kept at the workhouse :

1. Is there sufficient ventilation and warmth ?
2. Has the accommodation, during the preceding six months, for the several classes of sick been sufficient ?
3. Are the arrangements for cooking and distribution of food as regards the sick satisfactory ?
4. Is the nursing satisfactorily performed ?
5. Is there a sufficient supply of towels, vessels, bedding, clothing, and other conveniences for the use of the sick inmates ?
6. Are the medical appliances sufficient and in good order ? Are there any water-beds or rack bedsteads ? and, if so, are they sufficient and in good order ?
7. Are the lavatories and baths sufficient and in good order ?
8. Are the supply and distribution of hot and cold water sufficiently provided for ?

It will thus be seen that much has been done to render the poor-law infirmary complete and efficient in every department, and at the same time to place the responsibility for any deficiency that may occur upon someone who may be expected to be qualified to form a correct judgment upon the subject ; and as the medical officer's books, according to the regulations, have to be regularly presented at the meetings of the governing body, the conditions of the infirmary, and any defects and deficiencies that may exist there, are necessarily brought under notice, with a view of being remedied and supplied. Notwithstanding all these precautions, however, it must be admitted that, owing to a variety of circumstances, instances do occur where defects and deficiencies are still too often allowed to remain unremedied and unsupplied. This is, perhaps, more noticeable in the nursing arrangements than in any other branch, since the conditions under which the workhouse infirmary is managed are not usually such as can be expected to induce that superior class of modern nurse to accept office, or to remain long in the same service, as is the case in the majority of the non-poor-law hospitals. In many unions, where the number of sick may be fifty or sixty, there is but one nurse, who is subordinate to the master and matron of the workhouse—officers worthy enough

in themselves, but of no very superior condition. This nurse is allowed the assistance, of a kind, of certain paupers, and she is supposed to be constantly on duty. It is manifest that, under such conditions, superior and really efficient trained nurses are scarcely likely to be attracted to such poor-law infirmaries.

In the metropolitan, as also in some of the larger provincial poor-law infirmaries, the nursing staff has in modern times been much improved. From the thirteenth annual report of the Local Government Board (page xxxii), it will be seen that, in the year 1866, as many as 8,360 sick persons in all the metropolitan workhouses were attended during the day by 111 paid nurses (*i.e.*, one paid nurse to an average of every seventy-five patients), while as regards paid night nurses there were only three. In the year 1883, the paid nursing staff for the then existing twenty-two poor-law infirmaries in the London District was 610—or one nurse to every seventeen patients. Even this number, however, is scanty, since the nursing staff of a properly-conducted poor-law infirmary ought, for the purpose of night and day duty, as well as to meet occasional and regularly occurring circumstances (holidays, leave of absence, etc.), to be in the proportion of not less than one nurse to every eleven or twelve patients. A similar improvement has taken place in regard to the medical attendance ; for, whereas in 1866 the medical officers appointed to attend the sick in the London workhouses were nearly all in private practice, the report above referred to states that in 1883 the great majority gave their whole time to their duties, and were, moreover, assisted in a large number of instances by dispensers. It is probably owing mainly to the inefficient medical and nursing arrangements formerly existing in poor-law infirmaries generally, that the Poor Law Commissioners long ago discouraged the performance of all major operations in those institutions. When distance and other circumstances did not present serious obstacles, it was recommended that pauper patients needing any important surgical operation should be removed to a general infirmary or hospital, so that they might enjoy the practised skill and combined judgment of the medical men usually connected with such establishments. This recommendation still holds good, and boards of guardians are accordingly empowered, with the sanction of the central authority, to subscribe to a hospital or other similar institution with the object of securing the advantages which could thereby be afforded to any patient needing the special attendance that would thus be available

SOME OF THE POINTS OF DIFFERENCE BETWEEN POOR LAW INFIRMARIES AND GENERAL HOSPITALS.

In order to arrive at a just appreciation of the conditions which a poor-law infirmary, as distinguished from a non-poor-law hospital, has to fulfil, it will be useful here to bear in mind the precise classes of patients for whom these infirmaries ordinarily have to afford accommodation. As a rule there are comparatively few surgical cases. There are necessarily many cases of illness in the poor-law infirmary or workhouse sick-wards which involve surgical treatment of one sort or another, but what are known in the general hospitals as accident cases and casualty cases are for the most part absent. Even in the manufacturing towns and busy cities, where accident cases of every degree of severity are of constant occurrence, very few indeed of those cases are taken to the poor-law infirmary. In cases of great emergency patients may be admitted to the poor-law infirmary, and the cost of treatment can be recovered from the responsible friends; but there is a not unnatural repugnance amongst the more independent classes of the poor to be admitted into a workhouse, and even the most complete poor-law infirmary comes within the legal meaning of the term "workhouse."

The independent working-man or artizan who meets with a casualty in his employment usually belongs to some sick fund or club, or his firm of employers contributes largely to the funds of the local general hospital, and immediately on the occurrence of any casualty the sufferer is sent off to that hospital, and does not seek aid at the cost of the ratepayers by going to the poor-law infirmary.

A large proportion of the cases in the ordinary wards of the poor-law infirmary, or the sick-wards of the workhouse, are those of senile decay and every variety of complaint and complication resulting from intemperate, careless, and dissolute habits in earlier years. There are, in addition, the usual and numerous cases of bronchial and pulmonary complaints, complaints of the digestive organs and of the skin, rheumatism, paralysis, and a host of other common disorders, some curable and many quite incurable. So, too, there are many cases of offensive character needing separation, such as cancer, gangrene, bad legs, etc. Likewise, there are cases of itch and syphilis, also ailments of children, such as ringworm, ophthalmia, whooping-cough, etc., which, from their contagiousness,

need special arrangements, in order that they may be kept separate from the others.

The proportion of syphilitic cases varies considerably in different localities ; thus, in sea-port and garrison towns this class of cases is often larger than in other towns ; and since the repeal of the Contagious Diseases Acts the demand for ward accommodation for these cases in some poor-law districts has much increased.

Lastly, there must always be, in some suitable part of the workhouse proper, an adequate lying-in department, and, although these cases are not strictly infirmary cases and must not be in undue proximity to the sick, still, from the fact of their needing medical attendance and skilled nursing, the neighbourhood of the infirmary, when that building is at the workhouse, is often the most convenient place for them. It must further be borne in mind with regard to the sick that a large number of the cases that have to be received into the poor-law infirmary, whether at the workhouse or not, are those who, from their habits and social condition, or from the chronic nature of their complaints, are such as are unable readily to obtain admission into the wards of any general non-poor-law infirmary ; and, moreover, that whereas, in a general hospital, any patient who may be guilty of gross breach of rules, or may otherwise be found objectionable, can be dismissed from the hospital, patients in the poor-law infirmary must still be retained and dealt with as the circumstances best permit.

Another point wherein a poor-law infirmary differs from most general hospitals is that it never has any out-patients' department. A poor-law district frequently comprises a very large area, often extending many miles from one point to another in the same district or union, and as the individuals needing relief, of whatever kind, are destitute and usually without the means, even if they have the strength, to enable them to travel to the official centre of the district, agents are appointed in certain sub-districts to attend to the most urgent cases and arrange for the relief that is needed. These agents are the relieving officers and the district medical officers, and they each have their local offices, where, in the first instance, application can be made or information laid as to the assistance that is requisite. For the sick there is, in populous places, the medical relief station, comprising a general waiting-room with consultation-rooms for the medical officers in attendance, dispensing-rooms and all the usual accommodation of an out-patients' department, and the relieving officer will arrange for the

removal to the infirmary of such patients as, under the advice of the medical officer, the circumstances of the case may indicate as needing such treatment.

A further point of difference between the poor-law infirmary and many of the large general hospitals is, that the former never has any medical school attached to it. Hence it is seldom that a patient is admitted mainly on account of his complaint possessing some feature of special medical or surgical interest, as is sometimes the case in general hospitals where clinical teaching is carried on. The question of throwing the wards of poor-law infirmaries open for the study of medicine—whether, in fact, as has been suggested, these “state hospitals” ought not to pay such a toll to science—has in recent years been mooted on several occasions, but hitherto it has not been deemed expedient to do so in a general way. In a few large infirmaries efforts have been made, in one way or another, to use the materials available for clinical instruction. Lectures and demonstrations are given to nurses who are under training for their profession, and certain of the younger members of the medical profession have, in one or two instances, been admitted to the wards of a poor-law infirmary for the advantage of being present at lectures and demonstrations by eminent physicians who have been invited to conduct them; but at present these instances are quite isolated and experimental, and are due to the enthusiasm of individuals rather than to any widespread demand for such instruction. There is, no doubt, ample material in the wards of our larger poor-law infirmaries for much useful clinical instruction, and the admission of eminent outside physicians to those wards for purposes of observation with a view to such instruction could not be otherwise than advantageous, as tending to induce the best general treatment and supervision of the patients, and administration of the institution; but at the same time it is matter for consideration how far attention is to be paid to the feelings of the patients, prompted, perhaps, by mere ignorance, against being examined by, and discoursed upon to, a number of students. It may be said that this is no more than occurs in most large general hospitals; but the patients in those hospitals come there of their own free will, while in a poor-law infirmary the patients are compelled to be there by reason of their destitution, and, with perhaps a few exceptions, having nowhere to go and no friends who can take care of them, are practically obliged to remain patients in the infirmary as long as the officers decide to keep

them there, after which they may be returned to the general wards of the workhouse.

Having ourselves resided in a clinical hospital for fifteen years, we are strongly of opinion that, in the best interests of the sick in workhouses, those institutions should be available for clinical instruction. We believe that, with the introduction of clinical teaching into workhouses, the proportion of recoveries will be greater, and the comfort and welfare of the patients be materially improved, and that, as a consequence, the expenditure of the rates will diminish.

The great defect of the workhouse system in England at the present time is the absence of careful classification of the inmates. The innocent should be carefully protected and separated from the evil and impure, so that the scandal to be met with in the early morning in certain poor-law infirmary wards, when the feelings of the well-disposed are often outraged by the obscenities and conduct of the brutal and immoral inmates whom it is necessary to provide for, may cease to cast a lurid light on the Christianity of our England of to-day.

Nothing more truly horrible than what has actually occurred within our knowledge in sick wards of infirmaries under the poor law in this country in recent times, and which will continue to occur, until classification is everywhere carried out with an iron discipline, has probably ever happened in the history of the world.

Apart from the moral aspects, there is a physical side to be thought of. In those sick wards, where there is inadequate or possibly no nursing at all in any proper meaning of the term, the condition of the patients, especially when helpless and infirm, is a disgrace to our modern civilisation.

We could wish that one or more of our great newspapers would set themselves, regardless of cost, to investigate the actual condition of affairs, by employing trained investigators and able writers, to depict the abominations resulting from a system due to the impotence and parsimony of poor-law guardians, who ridicule the idea of spending any adequate sum to make it possible to secure the best treatment of the pauper sick.

Of course a visit to the Marylebone Infirmary impresses even experts with a feeling of thankful satisfaction, but the very excellence of a poor-law institution of this type makes the horrors of the worst of poor-law sick-wards more startling and repulsive. We look forward to the time when the County Council will take over

the administration of the entire poor-law system ; because such a reform would render it possible in large cities to adequately classify the paupers, whether sick or healthy, and public opinion would then insist upon the best possible provision being supplied for the accommodation of pauper patients.

It has been said that the larger proportion of cases in the poor-law infirmaries, or the workhouse sick-wards, are those of senile decay and chronic ailments which move but slowly towards their termination. In the thirteenth annual report of the Local Government Board (page xxxv) it is stated that, of 6,112 deaths which occurred during the year 1883 in the nineteen poor-law infirmaries of the metropolis—

998	or	16·3	per cent.	were	from	phthisis ;
831	„	13·5	„	„	„	chronic bronchitis ;
571	„	9·5	„	„	„	chronic forms of paralysis ;
451	„	7·3	„	„	„	senile decay ;
362	„	5·9	„	„	„	chronic forms of heart disease ;
266	„	4·3	„	„	„	cancer ;
227	„	3·7	„	„	„	renal disease.
3,706		60·5				

thus accounting for 3,706 deaths, or 60·5 per cent. of the whole mortality. The report adds that “it would be an error to suppose that the great mass of diseases admitted are of an incurable character,” since it is stated that, of the 18,927 admissions into the Poplar and Stepney Sick Asylum during the decennial period 1872–81,

10,116	were	recorded	as	cured ;
2,996	„	„		improved ;
1,078	took	their	own	discharge ;
690	were	removed	to	other institutions ;
4,047	died ;			

thus 69 per cent. went out of hospital with health wholly or partially amended, 53 per cent. were entirely cured, and in the fatal cases it is fair to assume that suffering was to a considerable extent alleviated by care and attention.

Though not strictly within the scope of the subject of poor-law infirmaries, it is necessary to state that provision has to be made at every workhouse in the provinces, as at every fully-equipped insti-

tution, for the isolation of those inmates who may develop any of the infectious fevers. In the metropolis this class of sick is provided for by the hospitals of the Metropolitan Asylums Board—a body composed mainly of guardians of the poor elected from the several metropolitan poor-law authorities, and who were originally constituted for, among other objects, making special provision elsewhere than at the workhouses for the care and treatment of paupers suffering from infectious fevers and smallpox. In the provinces the protection of the public health devolves upon the various urban and rural sanitary authorities, and as the provision of hospitals for the isolation of cases of infectious disease is not compulsory, a large number of districts are still unprovided with such hospitals, while in some instances where suitable isolation hospitals have been provided the sanitary authorities have foolishly decided to refuse admission to any pauper patient. In any case, however, it is usual in every well-arranged workhouse to provide, in addition to the infirmary, a small isolation hospital for the immediate separation of any inmate who may be suffering or may be suspected of suffering, from any infectious fever. The provision referred to is ordinarily very small indeed, as it has been rightly decided that no such cases should be brought to the workhouse from the outside, the wards being intended only for cases occurring amongst the inmates. Hence the amount of accommodation has usually ranged from one bed for each sex in the smallest workhouses to about six for each sex in the largest, the arrangements being such as admit, as far as practicable, of the safe reception and treatment simultaneously of at least two different infectious diseases—indeed, they are in principle similar to those recommended by the medical department of the Local Government Board in the case of isolation hospitals provided by local sanitary authorities. [See the official memorandum and diagrams on the subject issued by the Local Government Board.]





CHAPTER VI.

INFECTIOUS DISEASE HOSPITALS AND THE METROPOLITAN ASYLUMS BOARD.

LONDON.



HOSPITALS for persons suffering from infectious disease serve a double purpose—the relief of the poor thus placed in necessitous circumstances, and the isolation of those who might otherwise prove a danger to others. London, of all cities, cannot be regarded as careless of the welfare of the helpless, but it has been slower than smaller communities have been to recognise the value which attaches to the prevention of disease. If London deserves censure for its attitude towards sanitary administration, it must be recollected that the care of the sick has in part replaced the sanitary service of the metropolis, and has to some extent rendered it less of a necessity than if no provision for the poor had been made.

To understand the metropolitan arrangements for the care of the infectious sick it is necessary to refer to the history of former years, and to trace from the small beginnings of the early part of this century the vast system which now serves the double purpose to which reference has been made. In former years the London parishes from time to time made special provision for persons suffering from epidemic maladies, but no permanent arrangements for such diseases were provided, other than the sick-wards of work-houses, until the London Fever Hospital and the London Smallpox Hospital were brought into existence as the result of the philan-

thropy of certain charitable people. The year 1802 is noted as memorable because Cripplegate parish clothed two children, who were returned from the House of Recovery, the original name of the London Fever Hospital, and because the parish of St. Clement Danes shortly afterwards voted twenty guineas a year towards the maintenance of the institution.* The example thus set was, however, soon followed by other parishes, and, later still, all agreed to pay the cost of maintenance of patients admitted on the order of relieving officers into the London Fever Hospital.

Still later, in 1866, the duty of the metropolitan sanitary authorities in regard to hospital provision for infectious disease was clearly recognised by the Legislature; for the Sanitary Act of that year distinctly indicated that the isolation of persons suffering from this class of malady should be undertaken by those concerned in the preservation of the public health. Section 37 of that Act provided that the sewer authority, or in the metropolis the nuisance authority, might provide for the use of the inhabitants within its districts hospitals or temporary places for the reception of such sick. The authority might build such hospitals or places of reception, or make contracts for the use of any existing hospital or part of a hospital, or for the temporary use of any place for the reception of the sick, or might enter into any agreement with any person or body of persons having the management of any hospital for the reception of the sick inhabitants of its district on payment by the sewer authority of such annual or other sum as might be agreed upon; and further, two or more authorities having the power to provide separate hospitals might combine in providing a common hospital.

The sanitary authorities, however, failed to recognise that they had any obligation to isolate persons suffering from infectious diseases. All such cases had to depend upon the relieving officer for an order for admission into the sick-wards of the workhouses, or into one or other of the two charitable institutions mentioned above, or were dependent upon the assistance of the charitable. Isolation in the interest of the public health could hardly be said to exist; all that was thought of was the relief of the sufferer, and this was performed in a manner so unsatisfactory that a Bill was introduced by Mr. Gathorne Hardy in 1867, and became law as the Metropolitan Poor Act of that year, empowering the Poor Law Board (afterwards the Local Government Board) to combine metro-

* *All the Year Round*, August 18, 1861.

politan unions or parishes into asylum districts for the provision of hospitals for persons suffering from smallpox or fever, or being harmless lunatics, the cost of maintenance being paid by the parish from which the pauper was received, whilst that of administration was to fall upon a common metropolitan fund. The whole metropolis was at once virtually united into one asylums district for this purpose, and the Metropolitan Asylums Board was constituted with sixty "managers," fifteen of whom were nominated by the Local Government Board, and forty-five by the metropolitan boards of guardians from among themselves. This Board at once commenced to seek sites for the institutions which would be required. This was a work of considerable difficulty, seeing that the Board had no compulsory power of purchase of sites ; but eventually land at Hampstead, Homerton, and Stockwell was acquired. An immediate demand was made on the managers for accommodation for persons suffering from relapsing fever, which prevailed in London in 1869, and a temporary hospital was erected for this purpose on the Hampstead site. In the meantime permanent buildings, intended both for fever and smallpox, at Homerton and Stockwell, were erected just in time to meet the requirements of the most serious smallpox epidemic that London had known for many years. The wards and passages were crowded with beds ; but even this accommodation proved insufficient. Tents were pitched in the hospital grounds, and the pressure within these institutions was relieved as far as possible by the transference of the convalescent patients to the ship *Dreadnought*, which was fitted up for hospital purposes.

This epidemic taught plainly the lesson that these, the only hospitals provided by the State for the treatment of paupers suffering from infectious disease, could not be restricted to this class of the population. The demand for isolation within the walls of these institutions came from persons in almost all ranks of life. The relieving officers placed no difficulty in the way of the admission either of poor persons who were not paupers or of those of the middle classes, and thus fully 90 per cent. of the patients admitted were found only to have become paupers for the sake of gaining entrance to the hospitals.

In 1872, at the close of the epidemic, the buildings at Homerton and Stockwell, intended for fever cases, were devoted to persons suffering from that class of disease ; but it was found necessary, as the demand for admission into the hospitals of the managers

increased, to provide institutions in other parts of the metropolis. Sites were therefore purchased, and hospitals erected at Fulham and Deptford, which were used in the year 1877 during an epidemic of smallpox, the total available accommodation being at that time as shown in the following table :—

When opened.	No. of Patients sanctioned by Local Government Board.			Acreage.		
	Smallpox or Fever.	Smallpox.	Fever.			
Hampstead, 25 Jan., '70 ...	300	—	—	8	0	25
Homerton, 1 Feb., '71 ...	—	102	200	8	0	0
Stockwell, 21 Jan., '71 ...	—	102	198	7	2	0
Fulham, 10 March, '77 ...	240	—	—	6	1	14
Deptford, 17 March, '77 ...	310	—	—	9	2	0
Total	850	204	398	39	1	39

In 1879 the Poor Law Act of that year authorised the Metropolitan Asylums Board, with the approval of the Local Government Board, to contract with any metropolitan sanitary authority for the reception and maintenance in any hospital belonging to or under the management of the former Board of any person who is not a pauper suffering from any dangerous infectious disorder within the district of any such local authority, and empowered the local authority to recover the expenses of maintenance from the patient or his representatives at any time within six months after his discharge from such hospital. Further, the Metropolitan Asylums Board were empowered to provide and maintain ambulances for the conveyance of persons suffering from such disorder, as well as buildings and horses, and to employ such persons as are necessary for this purpose.

But the managers encountered a further serious difficulty in the course of their operations. A strong feeling was entertained that the institutions under their care were not an unmixed benefit to London; it was alleged, indeed, that they were the cause of smallpox prevalence in their several neighbourhoods, and eventually certain residents at Hampstead brought an action against the managers on the ground that the hospital in their midst was a nuisance. It is unnecessary to follow the course of the litigation in this matter; it will suffice to say that a jury in the Court of Queen's Bench decided against the managers, that the hospital was a legal nuisance, both

in its incidence and in itself, the evidence which was adduced leading to no other conclusion. The decision was appealed against, and eventually a compromise was effected.

The very general outcry against smallpox hospitals did not tend to encourage metropolitan sanitary authorities to incur any responsibilities by performing their duties as hospital-providing authorities, but during the epidemic of 1881-82 the vestries and district boards were informed by the Local Government Board that the duty of providing hospital accommodation for persons who were not paupers devolved upon them, and it was pointed out that the managers of the Metropolitan Asylums District could not be expected to provide for all cases of infectious disease in London. Shortly afterwards the rapid increase of smallpox exhausted the accommodation provided by the managers, and that available at the smallpox hospital at Highgate, and the vestries had to choose between leaving the sick in their own homes or making special provision themselves. The St. Pancras Vestry thereupon erected a hospital encampment on some fields belonging to their burial board at Finchley, but not yet included in the Finchley Cemetery, an example which was immediately followed by the Islington Vestry. Thus the difficulties of the moment were tided over. With the exception of these authorities and that of Poplar, the last of whom erected a permanent structure, no other of the district bodies made any effort to provide means of isolation for their infectious sick. They availed themselves of the facilities which relieving officers gave for the admission of such cases into the hospitals of the Asylums Board, which were now supplemented by the ships *Atlas* and *Endymion*, lent by the Admiralty and stationed off Greenwich, where cases of smallpox from London were received.

When the epidemic of 1881-82 began, the Local Government Board determined to study the effect of one of these institutions, and Mr. W. H. Power was appointed to inquire into the distribution of smallpox in the neighbourhood of Fulham Hospital. The circumstances were favourable for the investigation, for the hospital received cases of smallpox from other parts of the metropolis at a date anterior to its prevalence in the Fulham district. The inquiry is not less noteworthy for the ability shown in its conduct than it is for its unexpected results. Mr. Power's conclusions deserve to be stated at length :—

“There has been in each epidemic period an excessive incidence of smallpox on houses in the neighbourhood of the hospital, as

compared with more distant houses, in Chelsea, Fulham, and Kensington.

"The percentage of houses invaded in the neighbourhood of the hospital has become gradually smaller as the distance of the houses from the hospital has increased. This gradation has been very exact and very constant.

"Houses upon the chief lines of human intercourse with the hospital have not suffered more than houses lying in other directions from the hospital. In point of time there has been a very marked relation between the varying use of the hospital and the manifestations of excessive smallpox in the neighbourhood. This relation has not shown itself while the use of the hospital has been for convalescents only.

"The appearance of excessive smallpox in houses around the hospital has never been delayed until the hospital has become full or nearly full. It has been always most remarkable at the time when admissions to the hospital were beginning to increase rapidly,

"On comparison of different epidemics, an almost constant ratio is observed between the amount of the hospital operations and the degree of excess of smallpox on the neighbourhood.

"The machinery of the hospital administration, with inclusion of defects in that machinery, does not account for the peculiarity of smallpox incidence within the three parishes of Chelsea, Fulham, and Kensington since the establishment of the hospital.

"There must have been some condition or conditions operating to produce the observed distribution of smallpox around the hospital that have pertained to the hospital as such and that have been in excess of the conditions for smallpox extension as usually recognised."

This confirmation of the fears entertained as to the injury inflicted by smallpox hospitals assumed special importance, for the reason that the Fulham hospital was closed by order of Chancery, except for cases arising within a mile of its site, while similar proceedings were threatened as regards the Stockwell hospital. The difficulties of the managers became so serious that in 1882 a Royal Commission investigated the whole subject of fever and smallpox hospital accommodation for the metropolis. In the inquiry which they conducted they had before them the evidence of Mr. Power, and although they were unwilling to accept definitely as proved the whole of his conclusions, the recommendations they made were evidently based upon them—viz. that smallpox patients should be

sent down the river to hospitals in isolated situations on its banks, or, if this be found impracticable, to floating hospitals on the river itself; and that only those too ill to be removed from their immediate neighbourhood should be treated in the metropolis. For this purpose smallpox hospitals for some thirty or forty patients should be erected within the precincts of the fever hospitals, and London should be divided into hospital districts, so that no hospital should receive patients from any other district than that in which it was situated. With regard to the character of the hospitals, it was recommended that their construction should be such as should reduce within the smallest limits the chance of spreading infection, the Commissioners adding, "We fully believe that contrivances for this purpose might be devised; and we again call attention to the evidence on this head, which has been furnished to us by Dr. Burdon Sanderson," this evidence being to the effect that hospital wards might be so constructed as to enable the air after it has passed through the hospital to be subjected to high temperature or some other means of destroying whatever dangerous properties it may possess before it is discharged.*

The amount of accommodation for cases of infectious disease which the Commissioners held to be necessary for London was 3,000 beds for fever patients, and 2,100, or, by special exertion, 2,700 for smallpox patients. Of the 3,000 fever cases, those in the earlier stages—probably about one-half—should be provided for in the near neighbourhood of London; the other half—the convalescents—in two or three country hospitals. The larger number of fever patients, as compared with smallpox, which might be treated in London, was permitted because "all evidence goes to show that well-conducted fever hospitals involve no appreciable risk to the neighbourhood."

The recommendations as to administration for the prevention of infectious disease deserve notice, for the reason that the estimate as to accommodation is based more or less upon their adoption. In the first instance, the Commissioners recommended that the provision of hospital accommodation for persons suffering from infectious disease in the metropolitan districts should be entirely disconnected from the administration of the Poor Law, and treated

* This recommendation was for several years entirely ignored. But at last it is to be put to a practical test, as the sanitary authorities of Nottingham and Bradford (Yorkshire) have recently, with commendable enterprise, embodied the principle in hospitals erected by them.

as part of the sanitary arrangements of the metropolis ; that they should remain under the management of the Metropolitan Asylums Board, but that the vestries, district boards, and Commissioners of Sewers should have at least an equal influence with the guardians of the poor in the choice of the elective members of the Board, and that this Board should have the entire control of the ambulances for the removal of the sick ; further, that there should be a system of compulsory notification of cases of infectious disease,* and that the medical officer of health should decide whether the patient could be treated in his own home with safety to others ; but should he think otherwise, and the patient be in a condition fit for removal, he should at once be transferred to one of the Metropolitan Asylums Board hospitals ; and that, so far, those who are paupers and those who are not paupers should be treated alike, but that those who are desirous of being placed in separate wards should be allowed such accommodation on paying for it. The Commissioners felt, however, that in case of ordinary accommodation it was a question whether payment should be claimed even from those who could make payment without difficulty. As the result of the recommendations of the Royal Commission that hospital sites should be purchased outside London, those at Darenth in Kent, and Winchmore Hill, about four miles to the north of London, were obtained, the former for smallpox, the latter for fever convalescents ; and the hospital ships, the *Atlas* and *Endymion*, which, as already stated, had been previously lent by the Admiralty during the smallpox epidemic of 1881-82, were removed from Greenwich, where they had been stationed, to Long Reach, near Dartford ; and arrangements were made for the purchase of wharves at Poplar, Rotherhithe, and Fulham, and for the construction of ambulance steamers for the removal of cases of smallpox to the ships.

The erection of a permanent building at Winchmore Hill was proceeded with, but a return of smallpox prevalence in 1884-85 made it necessary to provide a camp on the Darenth site for the reception of smallpox convalescents as soon as these could be removed from the hospital ships, from which it was several miles distant. When this epidemic burst upon the metropolis the Asylums Board were far better able to meet the demands for accommodation than they had ever been before. They had, more-

* The notification of infectious disease in London has since been made compulsory by the Infectious Disease (Notification) Act, 1889.

over, developed an excellent ambulance service, which entirely replaced the arrangements previously made by the boards of guardians. In the meantime, the distribution of smallpox in the neighbourhood surrounding the Fulham Hospital, and the operations of the hospital, were kept under observation by Mr. W. H. Power, who, as the result of the most painstaking investigation, reported "that there is evidence alike from the experience of 1881 and of 1884, that smallpox has on occasions spread round the hospital to houses at all points of the compass in such a way that its spread cannot be accounted for unless its contagion has been conveyed through the general atmosphere;" and further, "that the excess of smallpox in the neighbourhood of the hospital was quite, and specially, remarkable at a time when the total admissions to hospital had not exceeded nine."

By this time the influence of the other hospitals of the Board had been studied by the majority of the medical officers of health in whose districts they were situated, as well as by others whose districts were in proximity to these institutions, and in one instance (St. Pancras) the observation had been extended to the London Smallpox Hospital at Highgate, with a result that there was general accord that hospitals containing acute cases of smallpox in London were a source of danger to the neighbourhood in which they were placed. The Metropolitan Asylums Board, by the completion of its admirable ambulance arrangements, were able to remove to the hospital ships nearly all cases of this disease which occurred in London, and this method of isolating smallpox thus became the practice of the Board.

In some other respects the procedure of the Asylums Board was materially modified. The vestries had, with few exceptions, refused to contract with the managers for the reception into their hospitals of persons suffering from infectious disease who were not paupers, but they did not hesitate to avail themselves largely of the opportunity that was given for the removal of such cases occurring in their district by the ambulances of the Asylums Board on the request of the medical officers of health, leaving the relieving officers to supply any orders necessary at a later date. Thus, these hospitals came to be recognised as the means of isolation for all classes of persons, irrespective of the fact that the machinery employed was entirely a branch of poor law administration. Perhaps this became the more universal for the reason that the managers declined to entertain the proposal of the few sanitary

authorities who were willing to contract, until London as a whole was prepared to adopt this system. It had, indeed, ceased to be a necessity from the moment the request of a medical officer of health was recognised as a sufficient warranty for the despatch of the ambulance. This, too, had its effect upon the two charitable institutions, the London Fever Hospital at Islington and the London Smallpox Hospital at Highgate; for, whereas some of the more active of the vestries had willingly paid for the admission into these hospitals of persons who were not paupers, they now gladly adopted the practice of sending their sick into the hospitals of the Metropolitan Asylums Board.

After the year 1884 there was no special prevalence of any epidemic disease in London, until in 1887 the fever hospitals became inundated with cases of scarlet fever. The death returns showed no unusual amount of this disease; but London had learnt the convenience of isolating its infectious sick in well-managed institutions, and the facilities given by the managers for this purpose were so generally understood and appreciated that the number of applications far exceeded anything that had before been known. On the 23rd of November as many as 2,789 cases were under treatment in these institutions, or nearly four times the greatest number that had been at any one time in the hospitals of the Metropolitan Asylums Board during the past ten years. Fortunately, smallpox was almost completely absent from the metropolis, only fifty-six patients suffering from this disease having been admitted during the year.

In the year 1887, in addition to the London Fever Hospital at Islington and the London Smallpox Hospital at Highgate, there were two hospitals on the same site at Homerton, one at Hampstead, two on the same site at Stockwell, one at Deptford, and one at Fulham; three hospital ships near Dartford, one used for administration, and the others for male and female patients respectively; a convalescent encampment at Darenth, and a convalescent hospital at Winchmore Hill. With the exception of the admission into the Stockwell or Deptford Hospitals of an occasional smallpox case, too ill for removal to the ships, all persons suffering from this disease were immediately transferred to the ships, the other institutions, with the exception of that at Darenth, being solely devoted to fever cases.

The ambulance system plays so important a part in the London defences against infectious disease that it deserves special notice.

There are three stations connected with the land ambulance service, situated on ground adjoining the Western Hospital at Fulham, the Eastern Hospital at Homerton, and the South-Eastern Hospital at Deptford respectively. Although adjoining these hospitals, the administration is altogether independent; each possesses coach-house, stables, disinfecting rooms, laundry, kitchen, dormitories, and lavatories for the staff, which consists of a superintendent, drivers, helpers, nurses, and a telephone-clerk, for every ambulance station is in telephonic communication with the central office at Norfolk Street. Well-arranged ambulance carriages are ready at any moment to proceed for the removal of a patient, accompanied by two men and a nurse. The ambulance contains a bed upon which the patient can lie down, and, as a rule, it is furnished for one case. The interior is well ventilated, and is constructed of polished wood, so that it can be readily cleansed and disinfected. The state of preparedness in which everything is kept will be best understood when it is known that, within three minutes of a summons being received from the central office for the removal of a patient, the ambulance has already started on its journey.

For the river service there are three wharves: the west, on the northern bank of the river at Fulham; the south, on the southern bank at Rotherhithe; and the north, on the northern bank of the river at Poplar. The removal of patients is effected in three steamers—the *Red Cross*, the *Maltese Cross*, and the *Albert Victor*, each fitted with ample separate accommodation for patients of both sexes, and having on board all the appliances for the treatment and feeding of the sick. The arrangements in these steamers are so complete that from the moment the patient is put to bed on board his hospital treatment may be said to begin. Certainly the fatigue of his journey is at an end, for he is attended by doctor and nurses, and is supplied with food, as he would be in any of the regular hospitals of the Board. The distances which are traversed can be conveniently seen by reference to the accompanying plan.

[Since the above was written the arrangements have been somewhat modified. It is not now necessary to obtain a relieving officer's order for admission to the Asylums Board hospitals. The certificate of any legally qualified medical practitioner has been substituted. The Board's hospitals have, therefore, lost their specially pauper character, and have become hospitals for the treatment of cases from all classes of society. The Board has also made arrangements to remove persons suffering from infectious

diseases to other hospitals than their own, and have thus become the metropolitan authority for the removal of infectious disease. They have further made arrangements to admit students (under proper precautions) to the practice of their hospitals, which have thus become schools of medicine.]

THE PROVINCES.

In this matter of providing for the infectious sick, London differs very materially from the rest of England, and the metropolitan arrangements, which we have described in some detail in the preceding pages, do not afford any idea of those to be found in the provinces. Many of the large provincial towns of England have already made, or are making, very complete provision for the prompt isolation of cases of infectious disease. But, notwithstanding the phenomenal growth of public opinion in regard to this question in recent years, many important centres of population, and a yet larger proportion of the smaller towns, as well as the majority of rural communities, have not yet moved in the matter.

Formerly many of the provincial general hospitals received "fever" cases either into their general wards, into special wards, or into detached "fever houses." But the obvious risks attending such admissions, when proper separation of infectious from other cases was not practicable, led the authorities of a great majority of the provincial hospitals to refuse absolutely to receive fever patients. In these circumstances, cases of infectious disease had either to be taken to the workhouse infectious wards, where such existed, to the demoralisation of the patients and the danger of the workhouse inmates, or to be retained in their own, possibly overcrowded, homes, to the detriment of themselves, of their families, and of the community at large.

That the risk of receiving infectious fevers into the ordinary wards of general hospitals is serious has too often been proved by sad disasters, and the experiences recorded in the elaborate report, which was made for the Privy Council in 1863 by Dr. J. S. Bristowe and Mr. Timothy Holmes, and to which we have already referred, did much to educate public opinion in this matter. It is now generally admitted, that cases of infectious disease should, on system, be treated in hospitals specially designed and maintained for that purpose, and having the special equipment and regulation requisite in the interests of the patients and the

community. And, as the isolation of such cases is a matter of grave importance to the public health, the provision and maintenance of the necessary hospitals should be the duty of the local health authorities, and, at least in the first instance, their cost should be a charge on the rates.

Public interest in, this matter has in recent years greatly increased, owing, doubtless, both to the spread of general education and the improvement in the organisation of local sanitary government. A century ago, the only special provision in England for infectious diseases was the old parish "pest-house," to be met with here and there, and the distrust with which those generally primitive and insanitary places were regarded by the public may be gathered from the fact that the "fever" hospitals, which at the end of the last century and the beginning of the present were erected by private effort in view of the epidemics of that time, were in many cases called by the more attractive title of "houses of recovery." It was not until about twenty-five years ago that the question of infectious hospital provision began to receive particular attention. By several enactments passed between 1832 and 1860 various more or less vague and cumbersome powers of making regulations for the prevention of cholera and other epidemic diseases, and for providing medical aid and accommodation to persons attacked, were conferred on the Privy Council and the old General Board of Health, but they did not lead to the provision of permanent hospitals. In July 1866, however, on the appearance once more of cholera, Orders were issued by the Privy Council, under the Diseases Prevention Act, 1855, providing that, where the medical officer of health, or the medical adviser, recommends, "the board or vestry shall, with as much despatch as practicable, provide fit and proper accommodation for the reception of such patients as have no home, or cannot be properly treated at home, and may with advantage to themselves be removed;" and further, that if cholera or choleraic diarrhoea exist in any dwelling whereof the medical practitioner reports "that the sick and healthy cannot therein be properly separated," the board or vestry "shall forthwith cause adequate accommodation to be procured for the reception of the healthy." Under these Orders in Council several "cholera hospitals" were established both in the metropolis and in the provinces, and some of them are still in existence.

It was about this time that isolation hospitals began to be regarded as essential defences against infectious disease, and hence

the Sanitary Act of 1866 went much farther, as regards hospital provision, than any previous measure. The provisions of that Act have already been referred to.* Henceforward, sanitary administration received increasing attention, both at the hands of the public and in Parliament. In 1871, the Local Government Board was established by the amalgamation of the medical department of the Privy Council and the Local Government Act department with the old Poor Law Board, and a new departure in local sanitary administration was inaugurated. Soon there followed the Public Health Act, 1875, which consolidated and strengthened the law of public health outside the metropolis, and under which the greatest advance has been made. Under section 131 of that Act, "any local authority may provide for the use of the inhabitants of their district hospitals or temporary places for the reception of the sick, and for that purpose may themselves build such hospitals or places of reception, or contract for the use of any such hospital or part of a hospital or place of reception, or enter into any agreement with any person having the management of any hospital, for the reception of the sick inhabitants of their district, on payment of such annual or other sum as may be agreed on. Two or more local authorities may combine in providing a common hospital." Section 124 provides that "where any suitable hospital or place for the reception of the sick is provided within the district of a local authority, or within a convenient distance of such district, any person who is suffering from any dangerous infectious disorder, and is without proper lodging or accommodation, or is on board any ship or vessel, may, on a certificate signed by a legally qualified medical practitioner, and with the consent of the superintending body of such hospital or place, be removed by order of any justice to such hospital or place at the cost of the local authority; and any person so suffering, who is lodged in any common lodging house, may with the like consent, and on the like certificate, be so removed by order of the local authority." As regards cost of maintenance, section 132 provides that any expenses incurred by a local authority in maintaining in a hospital a patient who is not a pauper "shall be deemed to be a debt due from such patient to the local authority, and may be recovered from him at any time within six months after his discharge from such hospital, or from his estate, in the event of his dying in such hospital." Sanitary authorities are also empowered to provide ambulances, disinfecting apparatus, mortuaries, &c.

* See page 92.

Thus it will be seen that the provision of hospitals by local authorities is entirely optional ; but it is significant of the influences at work that, whilst before the erection of the "cholera" hospitals of 1866 the only special provision for infectious diseases consisted of the few remaining "pest-houses" and the privately provided "fever" hospitals, the Local Government Board, in 1879, in reply to a circular which they had issued, learnt that means for isolation of some sort or other were possessed by 192 urban, 87 rural, and 17 port sanitary authorities, out of a total of 1,593 such authorities in England and Wales. Most of this provision had been made since 1870, and it included very many excellent hospitals which had been designed with much ability and after careful study, and built at considerable expense. Much of it, however, was isolation-provision only in name. In several ports disused hulks had been converted into floating hospitals, and had been found very useful.

About this time questions were arising as to the proper construction and disposition of infectious hospitals, and as to the possible influence of such hospitals in spreading disease in their vicinity. The Local Government Board therefore, in 1880, caused an exhaustive inquiry to be made into the whole subject by Dr. R. Thorne Thorne, and the full report of that inquiry still forms one of the most useful books of reference on this particular branch of hospital provision.

We cannot do better than quote here the remarks of the Board's chief medical officer, Dr. Buchanan, in summarising that report. "Dr. Thorne," he says, "has inspected about seventy hospitals in use by urban, by rural, and by port sanitary authorities ; of every variety of locality, size, and construction ; some thoughtfully devised on a scale adapted to the needs of their districts, and reckoned by those who had provided them as among the most valuable sanitary defences of those districts ; others ill placed, or on an altogether insufficient scale or badly planned, doing duty in default of better, though of flimsy material and hurried construction. And in administration the hospitals have varied from such as were freely opened to all who would, in the interests of the community and themselves, put the hospitals to their designed use, and such as were provided with arrangements, accommodations, and appliances fitting them for that use, to others that made the payment of large sums the condition of admission to them, and others that were wanting in one or many of the commonest essentials of hospital efficiency.

"As respects the advantages which Dr. Thorne has been able to demonstrate as accruing to a district from the provision of an infectious disease hospital in it, it is found that with few exceptions the hospitals have been used for the isolation of infected people who, in the absence of the hospital, could not have been isolated at all, but must have spread disease to their neighbours. And their use has not been by any means restricted to persons so lodged that their removal to hospital might be effected by compulsion. There are districts where the well-to-do artisan and shopkeeper and people of ranks of life esteemed even higher than these have been glad to profit by the advantages of the hospital, and have had their confidence justified by their own more assured recovery as well as by the satisfaction of having secured their housemates from disease and death.

"And the further gratifying fact appears from Dr. Thorne's report that, where any reasonable accommodation has been provided, there has been an increasing disposition on the part of the neighbouring population to make use of it, and even to allow their little ones to be put under the care of strangers in the hospital. Young children of ten years and under have ranged in various towns between 33 and 81 per cent. of the whole number received. The proportion of adults in the hospital was, as might be supposed, larger when smallpox or 'fever' has been the prevailing disease; the proportion of young children larger when the hospital was chiefly used for scarlatina. Nowadays, in the case of scarlatina, it would seem that the percentage contributed in some districts by children, out of the total admissions, is very closely the same as the percentage borne by children out of the total attacks of scarlatina in England. This fact alone may be taken as sufficient evidence of growing public confidence in these hospitals regarded as places for the recovery of the sick.

"The report draws a strong distinction between the utility of hospitals that had been deliberately prepared and kept in readiness against the time when infectious disease might appear in the district, and of those others that had been provided when an epidemic prevalence of disease was seen to be commencing. In the case of the former, the isolation of the sick person effected by the hospital had repeatedly appeared to mean the prevention of an epidemic in the locality. 'I could occupy you for hours,' says Dr. Thorne of the evidence he has collected, 'in telling you instances in which epidemics have evidently been prevented by the isolation of first cases of infectious disease.' But of the hospital hastily run up when

smallpox or fever is making head in the district the report has little good to say. 'It is often not ready for occupation,' he writes, 'until the immediate cause of its erection has passed by; it provides accommodation of a very indifferent sort; it fails, almost without exception, to meet the permanent requirements of the district, even when in amount it turns out to be more than the district needs; and thus the object of the hospital, as a part of the sanitary defences of the district, is often attained in a very imperfect manner and at a needlessly large cost.' Dr. Thorne's observations in this particular strengthen the grounds of the advice which the Board ever gives to local authorities, that it is a condition of the highest degree of importance, for the usefulness of these institutions, that their accommodation shall be ready beforehand."

In his recently issued report for 1890-91, Dr. Buchanan is able to make the encouraging statement that, during the ten years since Dr. Thorne's report was issued, "England, outside the metropolis, has doubled its amount of permanent hospital provision for the sick who require isolation, with corresponding increase of control over important infectious diseases." Yet local authorities are still too much inclined to rest happy in the false feeling of security which attends present immunity, and to postpone until disease has actually appeared the making provision for dealing with it. But in these days of ever-increasing facilities for travelling and inter-communication, even the most favourably circumstanced district is exposed to the importation, without warning, of smallpox, scarlet fever, or other infection. If proper means be available for promptly isolating the earliest cases of these diseases, whether they originate in the district or are imported, a slight outbreak may often be prevented from becoming a serious epidemic, which, if left to itself, would bring misery and ruin to many a family, and probably also involve heavy burdens on the rates. Hospital provision should, therefore, be regarded as a kind of insurance, and the cost be looked upon as a prudent investment.

Many authorities rely upon tents being available in case of emergency. But experience has shown that it is not always easy to obtain at a moment's notice a suitable site for such a purpose, and, moreover, tents are obviously not adapted for use during the colder months of the year, especially in our variable climate. Such accommodation is often valuable in warm weather or when temporary additional accommodation is wanted; but to rely upon

tents as permanent hospital provision against epidemics is to rest on a very frail staff.

There is still, too, a very prevalent disposition, especially in rural districts and small towns, to regard whatever provision may exist for infectious cases at the workhouse as proper and sufficient for the use of the general population. Apart from its actual illegality, such a disposition is contrary to the best interests of the poor and of the public health. It is altogether demoralising thus to force what has the appearance of parochial relief on the independent poor in the event of an attack of infectious sickness, especially when it is considered that the isolation is desirable as much in the interests of the community as of the individual. In the words of the report of the Royal Commission of 1882 on the smallpox and fever hospitals of London, "the provision of hospital accommodation for persons suffering from infectious disease in the metropolitan districts should be entirely disconnected from the administration of the poor law, and treated as part of the sanitary arrangements of the metropolis," and these remarks apply equally well to the rest of the country.

Moreover, the infectious wards of workhouses have ordinarily been designed to meet the wants of the pauper class only, and no justification can be found for endangering the lives of the helpless inmates of a workhouse by introducing into their midst infection from outside. Many a sad story of the spread of disease in this way amongst the infirm poor is within our own knowledge, and even during the past few months a very striking and serious illustration has been witnessed in a large town in the North of England, where, in spite of repeated warnings, non-pauper cases of smallpox were brought into the workhouse infirmary, and spread the disease to several of the inmates.

In some instances boards of guardians have provided, in connection with their workhouses, a detached infectious hospital which could be made to afford satisfactory accommodation for the surrounding district. But in such a case the building should, before general use, be made a non-pauper institution, by being transferred to the sanitary authority under section 14 of the Poor Law Act, 1879, the guardians entering into an arrangement with the sanitary authority for the admission of pauper cases. In such instances, however, all association with the workhouse must be severed.

Where arrangements of this sort are not practicable, it is always open to two or more adjoining authorities to combine for the joint

provision of an isolation hospital in a conveniently accessible situation, the primary cost being defrayed out of a loan repayable within a limited number of years, and apportioned between the several authorities according to their respective populations or rateable values. The management in such cases should be vested in a joint board set up under the guidance of the Local Government Board. During the last few years a number of these joint boards have been established throughout England with very satisfactory results.

Local jealousies, the fear of expense, and other causes have interfered with the extension of this plan, but the creation of county councils seems to us to afford an opportunity of removing the difficulties. Except in London, the county councils have not yet been invested with many sanitary functions, but their relations with the public health will ere long be made much closer. Parliament might well increase their powers in at least one direction, by constituting them the hospital-providing authorities for the whole of their respective counties. Embracing a considerable area and a number of separate variously circumstanced sanitary districts, a county council could in most cases utilise to the best public advantage the existing hospitals, or such as the sanitary authorities who have provided them chose to hand over, and could most readily, with the assistance of their medical officer of health, provide, on various suitable sites throughout the county, such hospitals, ambulances, and disinfecting apparatus as would meet the needs of the whole county. In this way the councils would be placed on somewhat the same footing as the Metropolitan Asylums Board of London, and probably with equally satisfactory results.

Another point to be taken into account in connection with these questions is the operation of the Infectious Disease (Notification) Act, 1889, and the Infectious Disease (Prevention) Act, 1890. The former of these Acts is in force in the whole of London, with its population of 4,211,056, and has already been adopted voluntarily by upwards of 1,000 extra-metropolitan sanitary authorities, with an aggregate population of upwards of 16,000,000. Similar provisions are already embodied in the Local Acts of fifty of the largest towns of England and Wales, with an aggregate population of 3,868,725, so that the notification of infectious diseases is compulsory in the case of upwards of 24,000,000 of the 29,001,018 inhabitants of the whole country, and ere long it will, we have little doubt, be made by Parliament to apply to the whole country.

uniformly. The Infectious Disease (Prevention) Act, 1890, which gives to those authorities who adopt it enlarged powers as regards disinfection of dwellings, clothes, &c., the supervision of suspected milk services and dairies, &c., is in force in London, and has been adopted in provincial districts having an aggregate population of upwards of 11,000,000. The operation of these useful Acts must tend to educate the public mind respecting the importance of guarding against infectious disease, and the possibility of averting epidemics by the adoption of proper precautions. Such education must lead to an increased appreciation of the advantages of isolation and an increased provision of infectious disease hospitals.

GENERAL REMARKS.

We have given a full account of the history and development of the system of hospitals for infectious diseases in England and the metropolis, because the arrangements are on the whole the best which human ingenuity and science have yet devised for the protection and well-being of the inhabitants of great cities, towns, and country districts. It was our intention to have dealt similarly with Scotland, Ireland, and certain European countries, but considerations of space and the assured certainty that our original plan, if followed, would add very little to the information already given, have decided us not to extend this chapter further. In the chapters which deal with foreign countries, certain points bearing on hospital provision for the treatment of infectious disease will be given. After all, the most interesting points for sanitarians and local authorities relate chiefly to the accommodation to be provided, and we have gone very fully into this aspect of the subject in the fourth volume when dealing with the construction and arrangements of hospitals for infectious disease. We were under the impression that there was much to learn from the systems adopted in other countries besides England, but a careful investigation, and more accurate knowledge of the precise facts, convince us that this is not in reality the case. Hence we must leave the reader, if he be dissatisfied with our conclusions, to refer to the following chapters, where he will find a short account of the chief features of each system. Where no such account is given, it may be concluded that nothing of interest was forthcoming as the result of our personal investigation, except the special features connected with the hospital buildings and arrangements, which find a place in the fourth volume of this book.



CHAPTER VII.

HOSPITAL REVENUES.

MONEY makes the mare to go" was a favourite axiom of our ancestors, and in hospital matters it is literally true. A great statesman once said that everything in the end resolved itself into a matter of finance, and hence the Chancellor of the Exchequer may be held to be the most important member of the Ministry in every country in the world. If he is clever and capable, wise, prudent, and enterprising, a sound financier with a wide knowledge of affairs ; if he possesses a touch with the people and with their habits and methods of thought in his day and generation, then, but then only, he will prove a tower of strength to the administration which he serves. It may seem at first sight an easy matter to diminish or increase taxation, to decide which item shall pay duty and which shall circulate free from all imposts of every kind. In practice, however, the history of the world shows that no Chancellor can afford to fly in the face of public opinion, to practise small economies which press hardly upon the poorer members of society, or to impose duties which increase the burdens of the humblest members of the community. A man may have great prescience and yet fail as a Chancellor of the Exchequer. The reason is not far to seek. The removal or the imposition of a tax has far-reaching results, and in an old country especially, where taxation has long prevailed, the disturbance caused by these alterations ramifies in all directions. For this reason it is impossible to precisely estimate the results which will follow such a change in practice. England presents an instance in point. When Mr. Goschen, the present Chancellor of the Exchequer, first took office he determined to avail himself of the

favourable condition of the market to reduce the interest on Consols from three to two and three-quarters per cent., and in a course of years to two and a half per cent. Other Chancellors had tried to effect this saving in the national expenditure and had failed. Mr. Goschen succeeded, but there are some victories which are more serious in their consequences than a defeat. Every class of the community was represented by the Fund-holders. A very large number of them consisted of people of limited means who were absolutely dependent for their income upon the dividends they had derived from Consols. The nature of the trusts under which the capital was invested made it imperative that the trustees should invest in this security.

An immediate loss of one-twelfth and ultimate loss of one-sixth of their income by many thousands of the community who were all respectable, and in a sense influential, naturally excited a strong feeling of resentment commensurate with the suffering and hardship, real or supposed, entailed by the loss in question. It follows that, despite the great success which has attended Lord Salisbury's administration as a whole, and notwithstanding the fact that the large majority of the people are Unionists in the sense that they will not willingly consent to a dismemberment of the Empire, and the further fact that Mr. Goschen's handling of the National Debt has enabled a diminution in taxation and an improvement of the national finances, the strong probability is that the indignation of the Fund-holders and the continuous irritation caused by the sense of loss which is brought home to each one of them every quarter-day when they receive their income, will probably have a very material influence upon the result of the next election. The Chancellor of the Exchequer seems to have had some fear of such a result, for the Government have encouraged legislation which has enabled trustees to a large extent to sell out of the Funds and to reinvest in other securities producing a larger return. Still, the irritation and sense of injury remain without any counterbalancing sense of satisfaction on the part of the nation at large at the resulting reduction of the national expenditure; because nobody really wanted this rearrangement of the national finances, and, in practice, taken individually, the people of this country care nothing about it whatever. Consequently, a good piece of business, well conceived and successfully carried out, may have disastrous results for the nation, out of all proportion to the benefits which can ever accrue from the reduction in the charge upon the National Debt.

It may be asked—what bearing can Mr. Goschen's action have upon hospital revenues? We have referred to it because it reveals the importance of avoiding narrow economies in financial matters. An absence of such wisdom on the part of those who are responsible for the financial arrangements of the hospitals of this country very often entails upon the institutions serious difficulties and defective administration from want of an adequate revenue. In other words, the committees and officials of a great public hospital must be held to be responsible for its financial condition during the period in which they exercise control. If we take our great hospitals individually and look at their financial condition, we shall find that, whether they be endowed or whether they be voluntary, or whether even they be rate-supported, the relative ability or incapacity of the financial administration reveals at once the relative efficiency of the administration of the whole institution. This is so because inadequate funds mean diminished supplies, and a disposition on the part of the more timid members of a committee to decry all expenditure, however necessary it may be in the best interests of the institution or to the proper treatment and speedy recovery of the patients treated in the hospital beds.

Now, there are many able financiers who give a great amount of time to hospital finance. If a large provincial hospital like the Birmingham General Hospital is taken, and its history from the date of its institution to the present day is studied, it will be found that from the fact that men of business have been at the head of affairs, every crisis in the history of the institution has been met to the fullest extent, and there has always been an abundance of funds to defray any legitimate expenditure, however large circumstances may have made it. Take again the condition of the great London hospitals. Of the three endowed hospitals—St. Bartholomew's, St. Thomas's, and Guy's—the first only is at the present time in a really strong financial position. Mistakes on the part of a late treasurer and governors of St. Thomas's Hospital brought about disastrous results so far as its finances were concerned, and for many years it has been crippled in consequence in its work. Guy's Hospital is even in a worse plight; because there the absence of an active interest in the administration on the part of the governing body has resulted in the missing of opportunities to fully develop the estates, and to anticipate changes in the value of agricultural property, which might easily have been foreseen by the exercise of common

prudence and an active interest on the part of the treasurer for the time being. It is all very well in these cases to talk about agricultural depression, but it must not be forgotten that St. Bartholomew's Hospital, with its great revenues, would have suffered to an even larger extent than the two kindred institutions that we have mentioned, had it not been for the exercise of greater prudence and intelligence on the part of its treasurers. We are certain that no greater calamity can happen to an institution than that it should have an endowment fund so large as to make those connected with it feel that they have more money than they want, and that there is really small need for the exercise of careful management and continuous control. The mistake of the treasurers of Guy's and St. Thomas's Hospitals was, in the first case to retain so much land as to make the investments speculative when they should have been secure and beyond question, and in that of St. Thomas's Hospital to sanction and permit an enormous outlay on buildings out of all proportion to the needs, necessities, and requirements of the case. Recent revelations have proved that even at St. Bartholomew's Hospital, where the administration of the invested funds has been most able, the administration of the internal economy, and especially the attention which has been paid to the hygienic condition of the buildings and drainage, is altogether inadequate.

The case of St. Bartholomew's, indeed, teaches the lesson that there may be a display of the utmost ability in the financial management, whilst the management itself has been allowed to fall into the second place, and so to result in reducing the institution to the level of a second-class hospital without adequate funds, where the interests of the patients, and the health of all who work within its walls, are disregarded and neglected. No one who knows the facts, no one who has an earnest desire to see the hospitals of England always efficient and in a state so excellent as to make every man proud of them as a class, can shut his eyes to the fact that some of the great endowed hospitals need radical changes in their governing bodies, and that until this has been brought about we must expect to find that they will recede farther and farther to the rear, until it may come to pass that, though they have more money than any other six institutions in the country, the state of their administration will be such as to make them a by-word even when they are compared with the poor law infirmaries of the day. We can only hope and believe that the time is approaching, if it is not even now come, when public opinion will

insist upon an alteration, and so secure the application of a remedy sufficiently drastic to make it impossible that the evils complained of shall ever recur in the history of these great institutions.

When we come to voluntary hospitals, and especially to metropolitan hospitals, instances point to the necessity of taking to heart the lessons taught by Mr. Goschen's action in regard to the National Debt. It has been a tradition for centuries that a festival dinner was always a *force majeure* whenever the hospital exchequer showed symptoms of emptying. Hence, festival dinners have been a feature of hospital administration in the metropolis of the Empire. Nearly twenty years ago we tested this means of raising revenue, and the result of our researches was to show, that in the majority of cases the money credited to the festival dinner would to a very large extent have come into the hospital exchequer even if the dinner had not been held. The result yielded very frequently amounts in practice to the crediting to the dinner of all the larger donations of the year, and a sum of which the larger portion is eaten up by expenses. Now, the Author would be the last person to discredit good-fellowship, intercommunication, and friendly intercourse where hospitals are concerned. There can be no doubt that, rightly understood and properly utilised, a festival dinner is a gold mine which may be worked with telling effect. But there are festival dinners and festival dinners. It is not the fashion of the age to dine in public to anything like the extent which prevailed in the days of our fathers and forefathers. So it comes to pass that a few speakers, more or less eminent, adorn the central table, whilst the secretary is very frequently at his wits' end to fill up the places at the cross-tables. If Jones, the eminent merchant, or financier, or influential governor, is invited to dine, and accepts, the usual result is that he sends a clerk or some other representative. In such a case the actual sum received in the room is very small—sometimes, we believe, not sufficient to pay the expenses. It is true that there is a certain magic in the word "festival" which attracts many philanthropic people, and leads them to send their cheque to the secretary without the slightest intention of being present at the dinner. We for our part believe, however, that it is a mistake to hold a dinner unless you attract to it all those who are connected with the charity who really have the power, and ought to have the will, to do it a service upon every possible occasion. How is this to be accomplished? Readily enough, as

experience has proved. A festival dinner should not be held too frequently—not more often than, say, once in three, or, better still, once in five, years. Then, the occasion being special, and very probably the need great, not only will a large sum of money be forthcoming at a relatively small outlay, but the dinner will be attended by a large number of influential and representative people, who will thus have their interest quickened in the charity, with the result that a continuance of support which might otherwise be wanting will be secured.

We are of opinion that the way in which dinners are managed at present is a mistake. People get tired of sitting, and sitting, and sitting, while speeches, more or less long and probably uninteresting, are being made. One good speaker, or, at the outside two, should suffice. Then, after dinner, a *conversazione* with music should be held in an adjoining room, to which the principal governors with their wives should be invited, and an opportunity be thus afforded to the committee and officers of becoming acquainted with many of them, of hearing their opinions concerning the charity, and of learning whether, and to what extent, they are prepared to take part in helping forward the work in hand. In this way a festival dinner would cease to be in any sense the pretentious humbug which it too often is at present. It entails an immense amount of work upon the officers, very often disorganises the official arrangements, and, unless a large sum can be shown to result from all the trouble expended upon it, we are of opinion that it might usefully be dispensed with. Further, it should be the rule not to ask for a renewal of donations from the governors of the hospital oftener than every third year. That is to say, a man who has given a donation this year should not be asked to give another until three years hence. Of course, everybody should be encouraged to give an annual subscription; but this will be paid in to the credit of the hospital as a matter of course.

The chief sources from which the voluntary hospitals of this country derive their revenues are—(1) annual subscriptions; (2) donations; (3) grants from public funds—e.g. Hospital Sunday and Hospital Saturday; (4) legacies; (5) invested properties; (6) patients' payments; (7) nurse-training school; and (8) miscellaneous receipts.

Taking them in this order, it will be seen, on reference to the tables which follow, that there is a remarkable disparity between the amounts received from each source by the London, Provincial,

and Scotch and Irish hospitals. Thus, the backbone of the hospital system in the provinces is the annual subscription, whereas in London this source of revenue yields a relatively small sum, except in a few hospitals where the management has been particularly active and capable. The percentage derived from subscriptions for the various classes of general hospitals for the year 1889 was as follows:—in London, 9'26; in the Provinces, 28'58; in Scotland, 19'82; and in Ireland, 17'45; the average being 18'89. These figures go far to show that here is a source of revenue which the metropolitan managers might cultivate into the most fruitful of all. That this is so is shown by the experience of hospitals like the Seamen's, St. Mary's, and St. George's. Taking them in the order named, it appears that the amount received in annual subscriptions in 1889 was, in the case of the Seamen's Hospital, upwards of 25 per cent., or one-quarter of the whole; at St. Mary's, nearly 50 per cent. of the total ordinary income; and at St. George's, 33 per cent. What the managers of these three great hospitals have done can be done by the managers of every London hospital if only they would set about it in the right way. It has been too much the fashion in the metropolis to depend chiefly upon donations, because the majority of the managers look West for the support they require, instead of devoting themselves to exciting a strong local interest in the welfare of their institutions, and so securing steady annual contributions from everybody in the neighbourhood of each hospital who is in a position to give something regularly to the support of the great institutions of which the majority of the inhabitants are not unreasonably proud. Fifteen years ago neither St. Mary's nor the Seamen's Hospital got anything like a reasonable sum from annual subscriptions. The governors were, however, fortunate enough to secure officers who were alive to the importance of the annual guinea, and who set themselves deliberately to attract a large body of annual subscribers, with the result already stated. What one metropolitan hospital has done, all can do if they will only put their hand to the work, after they have ascertained the methods which have been so successful in the case of the three hospitals named.

In this connection it may be well to state, that we hold that the hospitals have strong claims upon the sympathy and support of the wealthy people who spend but a limited portion of each year in the metropolis. During their residence they have the advantage of the services of the inhabitants, and without these services they could

neither accomplish what they wish, nor enjoy the many comforts and advantages which they receive ; because both are due in great measure to the labour of the humbler folk who have perforce to reside continuously in the metropolis, and who are to this extent dependent upon the wealthy who employ them, or who at any rate benefit largely by their services. Every wealthy person who comes to London, and especially everyone who maintains a residence there, is bound in honour to contribute (as many of them do) to the relief of the needs and necessities of the poorer residents of the metropolis.

Another claim which the hospitals might urge upon the wealthy is, that by their work it has become possible to train an army of skilled medical men, who minister to the needs of the wealthy, and so establish a claim upon their consideration when the hospital appeal reaches them, as it is sure to do in the course of the year. We take it that it is no answer to urge, as many well-to-do people are not ashamed to do, that as they subscribe to the local charities in the neighbourhood of their country houses, they really cannot be bothered to take any interest in, and much less to support, the metropolitan hospitals. Such a contention is neither reasonable nor just, and we are sure it only requires to be answered in a temperate and forcible way to secure a much larger response to the hospital appeal from the majority of the casual residents who come to London for a few months for pleasure, relaxation, or business. If, as we have said, the metropolitan hospital managers would map out an area from which their patients come, and then set themselves to appeal for an annual subscription from every resident within that district who can afford to give it them, they would gradually secure that in this way would be given twenty-five per cent., and possibly fifty per cent., of the funds needed to maintain their hospital in efficiency. The metropolitan special hospitals have shown the way in this matter, as they receive 25·80 per cent. of their income at the present time from annual subscriptions. It may further be said that this source of revenue has not been cultivated to a sufficient extent either in Scotland or Ireland by the general hospitals, seeing that only 19·82 per cent. of the income of the Scotch general hospitals, and 17·45 per cent. of the income of the Irish general hospitals, is derived from annual subscriptions, whereas the special hospitals in Scotland obtain no less than 47·53 per cent. of their annual revenue from this source alone.

Donations are a fruitful source of income, yielding, in the case

of London general hospitals, 15·97 per cent. of the total, or 75 per cent. more than subscriptions. Provincial hospitals derive 23·78 per cent. of their income from donations, while the percentage in Scotland is 17·72, and in Ireland 37·99.

Legacies bear the following proportion to the total income in the groups of hospitals named:—London general hospitals, 18·85 per cent.; London special hospitals, 15·47 per cent.; Provincial general hospitals, 13·96 per cent.; Provincial special hospitals, 14·56 per cent.; Scotch general hospitals, 43·74 per cent.; Scotch special hospitals, 12·37 per cent.; Irish general hospitals, 13·46 per cent.; and Irish special hospitals, 17·99 per cent.

The Hospital Saturday and Sunday Funds represent the following percentages to the total income:—London general hospitals, 4·52; London special hospitals, 7·35; Provincial general hospitals, 8·77; Provincial special hospitals, 6·83; Irish general hospitals, 2·74; and Irish special hospitals, 0·76. In the case of Ireland, the whole of the income derived from the Hospital Sunday Fund has not been included, owing to the difficulty of separating it from donations. In the case of Scotland, the Hospital Sunday and Hospital Saturday movements are practically unknown. Congregational collections are made from time to time in Scotch places of worship, and in lieu of Hospital Saturday the workpeople have organised movements which yield many thousands a year to the revenues of the medical charities.

Patients' payments produced in the case of London general hospitals, 2·04 per cent. of the total income; in London special hospitals, 7·53 per cent.; in Provincial general hospitals, 0·55 per cent.; in Provincial special hospitals, 14·29 per cent.; in Scotch general hospitals, 1·03 per cent.; in Scotch special hospitals, 0·04 per cent.; in Irish general hospitals, 8·56 per cent.; and in Irish special hospitals 10·3 per cent. of the total income.

Another source of income has arisen of late years from probationer-nurses' payments. These represent, in the case of London general hospitals, 0·69 per cent. of the total income; and, in the London special hospitals, 1·00 per cent. Provincial general hospitals derive 0·70 per cent., Provincial special hospitals 0·73 per cent., Scotch general hospitals 0·16 per cent., Scotch special hospitals 0·46 per cent., Irish general hospitals 0·02 per cent., and Irish special hospitals 1·08 per cent. of their income from this source.

Miscellaneous receipts represented the following percentages in the groups named:—0·91 in the case of London general hospitals;

0·45 in London special hospitals ; 1·29 in Provincial general hospitals ; 2·05 in Provincial special hospitals ; 2·96 in Scotch general hospitals ; 0·19 in Scotch special hospitals ; 3·18 in Irish general hospitals ; and 2·78 in Irish special hospitals.

Very many arguments might be based on the figures contained in the tables, but we do not propose to mention them in this place. All these sources of income are well worthy of the closest study. Each branch of the institution shows marked differences, and these differences are emphasised and increased (as was the case with the London general hospitals and annual subscriptions) when the results yielded by individual hospitals are examined. We have an intimate knowledge of the methods pursued in the provinces as well as in London, and we are convinced that the metropolitan hospital managers have a good deal to learn from the way in which the provincial institutions are conducted. No doubt in some directions the metropolitan hospitals are on the whole more efficient than the provincial ; but it must not be forgotten that several of the most efficient and best administered of English hospitals are to be met with outside the metropolitan area. We commend the figures to all who are interested in the prosperity and progress of our hospital system, and we believe the closer they are studied the more satisfactory will be the ultimate results all along the line.

METROPOLITAN, PROVINCIAL, SCOTCH, AND IRISH HOSPITALS WITH MEDICAL SCHOOLS.

Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Hospitals, with Medical Schools, supported by Voluntary Contributions. They have 9,298 Beds, and a total Income of £701,670 12s. 5d.

MEDICAL SCHOOLS.																						
Dividends and Invested Properties.			Subscriptions.		Donations.		Boxes.		Legacies.		Hospital Saturday.		Hospital Sunday.		Patients' Payments.		Pro-bationers' Payments.		Miscellaneous Receipts.		Totals.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
<i>London.</i>																						
London ..	24,317	6 7	4,559	11 6	12,748	16 3	450	13 3	25,733	16 3	3,331	9 6	602	11 0	3,331	9 6	3,221	11 2	1,026	4 0	534	16 0
Guay's ..	26,891	10 8	..	..	3,283	12 5	..	..	..	..	..	..	536	11 0	159	16 8	5,714	4 8	..	..	103	5 0
St. Thomas's ..	47,662	10 8	..	..	1,769	9 2	16	8	21,602	9 2	1,611	11 8	..	..	2,031	5 8	..	..	..	..	63	1 0
St. George's ..	13,230	0	6,792	5	2,709	9 2	..	..	..	..	313	19 0	..	..	2,031	5 8	..	..	..	..	118	3 0
St. Andrew's ..	7,113	18 6	2,129	14 6	2,669	0 50	..	..	12,456	17 11	294	4	..	..	1,875	0 0	..	..	..	..	64	4 0
St. Mary's ..	3,365	10 4	1,068	15 6	6,544	12 3	..	..	14,567	17 12	186	5	..	..	1,406	5 0	115	2 6	428	18 11	64	4 0
St. University ..	9,060	10 4	2,443	4	7,061	12 5	106	1 0	..	..	215	5	..	..	1,093	15 0	76	0 0	..	..	421	9 11
King's ..	2,101	2 8	4,132	7 6	3,388	18 8	24	3 8	1,095	14 8	215	5	..	..	987	15 0	..	..	..	..	91	4 7
Westminster ..	2,173	16 0	1,831	4 6	2,360	12 6	95	2 8	307	4 11	200	2	..	..	958	6 8	242	14 0	..	..	81	6 0
Charing Cross ..	875	5 2	933	13 6	1,593	12 6	..	..	4,993	12 3	188	9	..	..	987	6 8	..	..	..	..	72	7 11
Royal Free ..	1,760	15 1	1,063	3	1,593	12 6	..	..	..	..	79	2	..	..	250	0 0	..	..	..	..	34	0 0
London Homoeopathic ..	76,429	13 9	..	..	337	0 0	..	..	307	10 8	79	2	..	..	..	..	1,358	14 0	..	..	150	7 2
St. Bartholomew's ..	269,003	11 1	28,833	1	50,843	10 11	942	4 1	80,687	17 0	2,616	5 0	13,760	12 2	9,126	18 4	3,056	10 11	2,798	9 6	401	510 0
<i>Provincial.</i>																						
<i>Leeds General Infirmary</i>																						
Leeds General Infirmary ..	5,413	9 3	7,824	3 6	9,860	8 9	162	17 3	597	16 5	..	..	..	..	147	11 0	..	..	..	..	331	4 10
Manchester Royal Inf. & Disp.	8,276	7 3	3,247	2 1	497	8	31	3 7	1,818	8 4	691	6 3	2,680	15 0	4,744	17 1	742	2 1	..	..	86	13 9
Birmingham General Infirmary	3,169	4 7	3,851	13 2	2,992	8 4	..	..	2,688	18 5	..	..	1,487	16 0	..	..	137	13 3	143	14 11	173	369 5
Newcastle-upon-Tyne Roy. Inf.	6,164	7 8	1,385	12 2	3,992	8 4	..	..	2,688	18 5	..	..	1,487	16 0	..	..	87	2 11	..	..	87	2 11
Bristol Royal Infirmary ..	3,112	15 0	2,283	5 0	9,149	8 4	161	5 0	9,149	8 4	..	..	..	..	..	..	..	..	..	..	18,442	17 8
Sheffield General Infirmary ..	2,695	7 8	2,504	13 6	1,870	1 0	..	..	..	..	591	2 9	1,095	4 2	..	..	..	..	..	..	8,838	4 5
Liverpool Roy. Southern Hosp.	2,311	4 2	1,851	19 0	1,138	14 5	..	..	605	0 6	1,560	0	..	..	..	..	..	..	..	..	74	66 18
Adelaidebrooke's Hospital ..	1,500	39 1	1,852	5 0	1,393	2 2	..	..	795	0 6	194	5	52	3 3	1,063	7 0	1,063	7 0	..	..	82	19 4
Radcliffe Infirmary ..	2,072	19 0	2,842	13 9	1,204	19 2	..	..	1,603	0 0	1,345	18 8	1,435	14 9	60	2 58	359	7 0	1,020	7 8	8,618	10 4
Birmingham Queen's Hospital	168	11 2	2,688	7 10	363	13 7	..	..	2,471	7 2	4,812	1 5	8,815	15 3	..	..	..	..	..	..	57	9 1
Liverpool Royal Infirmary ..	2,437	2 0	2,688	6 0	3,758	13 7	355	5 1	21,658	15 6	4,812	1 5	8,815	15 3	940	13 3	1,652	14 0	1,984	12 1	139,958	14 5
<i>Scotch and Irish.</i>																						
Glasgow Royal Infirmary ..	9,790	6 6	12,482	4 4	3,031	13 8	..	..	30,097	1 5	2,251	6 3	..	..	225	5 6	257	1 6	4,552	10 0	60,345	13 9
Glasgow Western Infirmary ..	4,569	6 6	7,248	14 6	1,659	10	..	..	30,097	1 5	..	..	..	..	68	10 0	10	10 0	58	14 0	45,544	19 10
Glasgow Western Infirmary ..	2,074	5 7	3,682	1 0	6,499	9 0	..	..	12,681	5 1	..	..	..	..	..	..	..	..	..	125	5 3	
Dr. Steeven's, Dublin ..	..	..	1,582	16 11	..	..	..	..	120	12 9	..	..	..	..	777	3 1	5	0 0	650	0 0	5,735	10 9
Dr. Belfast Royal Hospital ..	741	14 4	1,634	4 6	2,749	14 6	4	4	2,854	18 0	242	4 1	..	..	914	18 6	..	..	232	10 7	9,173	18 11
Adelaide Hospital, Dublin ..	430	18 10	1,077	4 0	2,269	1 5	..	..	1,655	7 8	697	17 3	..	..	910	17 0	..	..	125	11 0	7,766	18 0
<i>Meath Gen. Hosp., Dublin ..</i>																						
Meath Gen. Hosp., Dublin ..	1,010	4 2	3,479	10 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44	17 0
<i>Includes Hospital Saturday and Sunday.</i>																						
• Includes Hospital Saturday and Sunday.																						

• Includes Hospital Saturday and Sunday Fund.

METROPOLITAN AND PROVINCIAL HOSPITALS WITHOUT MEDICAL SCHOOLS.

Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Hospitals, without Medical Schools, supported by Voluntary Contributions. They have 8,727 Beds, and a total Income of £408,936.

[illegible]

PROVINCIAL HOSPITALS WITHOUT MEDICAL SCHOOLS (continued).
Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Hospitals, without Medical Schools, supported by Voluntary Contributions (continued).

GENERAL HOSPITALS.	Dividends and Invested Properties.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Stairway.	Hospital Stairway.	Hospital Stairway.	Patients' Payments.	Probationers' Payments.	Miscellaneous Receipts.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>Provincial—continued.</i>												
Brought forward ..	25,999 18 9	36,311 1 10	30,988 7 9	730 11 9	19,992 19 11	3,115 8 2	5,721 9 0	1,909 0 0	485 7 8	454 16 6	1,292 0 6	126,911 1 10
Salop Infirmary ..	847 5 0	2,063 14 0	861 5	4 2 9	490 14 7	35 0 0	195 0 0	16 14 6	127 1 0	53 14 2	53 14 2	4,60 13 5
St. Andrew & Bishopwearmouth Infirmary ..	393 16 1	5,587 4 8	1,707 9 5	..	109 0 0	188 13 10	..	16 10 0	..	80 2 6	80 2 6	8,372 16 6
Swansea Hospital ..	404 2 4	2,090 2 7	..	18 3 9	..	..	..	24 18 6	..	36 2 1	36 2 1	2,573 9 3
Royal Portsmouth, Portsea, & Gosport Hospital ..	680 2 0	1,544 8 6	2,312 19 0	14 3 1	149 0 0	400 0 0	..	32 7 6	50 16 0	70 1 3	70 1 3	5,273 17 4
Salford Royal Hospital ..	2,246 7 11	1,375 7 0	272 8 10	9 9 1	1,250 0 0	966 3 2	..	37 3 0	..	..	..	6,096 19 0
Worcester General Infirmary ..	1,550 13 8	1,460 10 6	743 0 5	1 13 10	531 15 6	..	2,811 0 0	13 11 0	84 5 0	31 19 11	31 19 11	4,018 0 10
Warwickshire Hospital ..	596 3 6	1,715 15 6	2,226 16 1	4 12 7	1,044 7 7	321 0 5	..	17 6 6	..	96 12 4	96 12 4	6,932 14 6
S. Devon & E. Cornwall Hosp. ..	811 18 5	1,193 2 0	1,465 16 10	20 14 4	1,210 0 0	592 3 2	800 0 2	1,210 0 0	..	..	..	6,004 3 11
E. Suffolk & Ipswich Hospital ..	1,004 14 4	1,306 9 10	583 1 8	..	1,879 5 9	157 11 1	681 15 7	..	..	97 0 9	97 0 9	5,729 19 0
York County Hospital ..	2,408 9 1	1,162 19 6	2,923 5 8	..	1,909 3 6	..	..	40 8 0	243 15 0	73 10 11	73 10 11	8,911 11 8
Hants Royal County Hospital ..	1,235 4 0	1,868 13 6	514 10 6	..	300 10 0	102 18 0	154 10 5	3 18 9	277 0 0	24 1 7	24 1 7	4,421 12 9
Hereford General Infirmary ..	2,113 7 10	964 1 0	287 2 6	2 14 6	190 0 0	..	..	35 3 0	..	..	..	3,050 10 10
Preston and County of Lancaster Royal Infirmary ..	1,970 7 3	858 8 6	2,407 1 8	11 0 6	..	..	..	219 8 0	..	29 13 2	29 13 2	5,435 10 1
Lincoln County Hospital ..	1,362 10 5	1,400 12 6	1,399 14 11	..	158 14 0	570 12 8	..	38 14 7	4 0 0	64 10 8	64 10 8	5,903 9 9
Sheffield Public Hospital ..	..	..	..	..	..	..	..	..	..	..	..	..
Dispensary ..	319 17 3	2,504 11 4	452 9 5	32 1 11	1,042 18 4	327 14 4	607 3 5	..	..	..	..	5,382 11 11
(General Kent and Canterbury Hospital ..	765 18 8	1,411 5 8	920 16 3	61 5 5	515 0 0	103 13 3	87 12 2	..	..	130 2 9	130 2 9	3,693 14 2
Bolton Infirmary & Dispensary ..	1,237 9 7	1,068 16 0	200 19 1	2 6 7	2,000 0 0	1,420 0 0	4,012 7 7	43 13 0	..	32 4 1	32 4 1	6,416 0 11
North Devon Infirmary ..	623 15 6	751 2 4	683 14 3	..	144 10 1	..	6 0 0	..	..	44 9 0	44 9 0	2,253 11 6
Salisbury Infirmary ..	1,999 16 9	1,340 7 6	921 7 0	..	1,200 0 0	..	..	..	..	340 12 1	340 12 1	5,811 3 11
St. Andrews General Infirmary ..	1,112 3 11	897 18 6	324 8 11	..	..	151 1 3	..	..	..	14 19 0	14 19 0	2,579 17 8
Essex and Colchester General Hospital ..	922 6 5	995 8 6	534 15 9	0 12 0	281 0 0	530 18 5	..	..	..	101 13 4	101 13 4	3,276 14 5
Taunton and Somerset Hospital ..	606 13 11	1,355 16 6	2,992 8 5	..	..	..	..	..	..	88 13 5	88 13 5	4,950 12 3
Carry forward ..	51,119 2 7	69,016 15 2	55,724 7 9	913 12 1	35,478 19 3	8,016 14 7	8,783 3 4	1,045 4 0	1,256 12 6	2,898 9 5	2,898 9 5	239,158 6 5
		2,090 2 7				2,815 3 2						

PROVINCIAL HOSPITALS WITHOUT MEDICAL SCHOOLS (*continued*).

Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Hospitals, without Medical Schools, supported by Voluntary Contributions (continued).

GENERAL HOSPITALS.	Dividends and Invested Property.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Pro-bationers' Payments.	Miscellaneous Receipts.	Totals.
	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>	<i>£</i> <i>s.</i> <i>d.</i>
<i>Provincial continued.</i>											
Brought forward ..	54,119 2 7	69,016 15 2	55,724 7 9	943 12 1	35,478 19 3	8,016 14 7	8,783 3 4	1,045 4 0	1,256 12 6	2,898 9 5	239,138 6 5
Halifax Infirmary ..	1,043 12 1	1,634 4 6	3,675 14 0	46 17 10	..	2,815 3 2	..	..	..	55 4 4	6,455 12 9
Royal Albert Hospital, Devonport ..	608 18 3	655 12 0	1,377 5 3	26 13 0	90 0 0	237 14 11	73 16 9	174 19 4	21 0 0	14 5 2	3,280 4 8
Boyle Borough Hospital ..	404 1 10	1,053 19 4	..	5 18 9	..	762 15 2	257 17 2	66 17 6	..	6 16 11	4,558 6 8
Blackburn and East Lancashire Infirmary ..	1,990 12 11	1,074 1 0	3,472 4 0	..	..	..	..	..	..	169 18 8	6,726 16 7
Suffolk General Hospital ..	1,533 14 0	832 18 5	383 13 8	3 9 6	43 19 0	..	..	..	..	21 0 11	2,818 15 6
Royal Surrey County Hospital ..	516 3 0	2,204 6 5	1,648 15 2	..	938 0 0	..	..	..	..	231 14 7	5,538 19 2
Cheltenham General Hospital ..	1,643 4 1	1,590 2 0	1,031 3 8	..	477 6 11	100 15 10	..	..	75 1 6	23 0 2	4,340 14 2
Durham County Hospital ..	973 12 6	713 0 6	119 0 8	1 15 10	444 10 0	219 0 0	110 19 7	..	..	..	2,582 5 1
Coventry and Warwickshire Hospital ..	710 8 4	761 1 0	352 3 10	..	2,100 0 0	991 14 3	..	18 0 0	..	24 2 2	4,957 0 8
Stockport Infirmary ..	1,001 15 8	832 7 6	1,022 3 10	3 5 8	..	..	..	27 1 0	..	21 8 1	3,828 7 9
Macclesfield General Infirmary ..	147 1 7	602 4 0	2,066 19 4	..	..	..	..	..	90 0 0	30 2 4	2,956 7 3
Torbay Hospital ..	280 14 10	731 14 6	879 0 11	39 19 10	..	103 10 6	..	28 8 6	..	55 18 9	2,119 7 10
Hartpool's Hospital ..	76 10 1	894 4 10	710 9 9	..	..	..	..	13 6 11	..	0 6 9	1,694 18 4
Aylesbury General Infirmary ..	621 19 2	711 19 0	514 19 3	2 6 0	45 0 0	..	..	..	28 0 0	13 4 0	1,937 7 5
Northwick General Hospital ..	315 17 2	392 13 4	598 3 1	50 3 1	210 3 5	..	227 18 5	..	..	28 8 4	1,823 6 10
Hospital and N. Derbyshire ..	572 6 3	1,213 16 5	140 15 0	..	..	..	..	..	..	109 17 0	2,036 14 8
Stockton Hospital ..	80 3 0	2,421 11 10	269 11 6	..	..	..	..	..	..	0 9 1	2,721 15 5
Saffron Walden Hospital ..	440 1 8	421 13 0	368 1 4	2 17 2	..	..	..	112 14 0	..	9 5 0	1,354 12 2
Stroud General Hospital ..	233 13 0	530 11 6	518 17 11	19 1 8	60 0 0	..	320 18 7	..	..	24 14 0	1,707 16 8
Darlington Hospital and Dispensary ..	272 13 4	963 12 9	938 2 6	..	1,000 0 0	..	..	..	..	..	3,174 8 7
	63,986 5 4	88,198 9 8	76,711 18 5	1,116 0 5	40,887 18 7	10,432 5 3	9,774 13 10	1,486 11 3	1,460 14 0	3,758 5 9	303,772 7 7
		3,144 1 11				2,815 3 2					

SCOTCH AND IRISH HOSPITALS WITHOUT MEDICAL SCHOOLS.

Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Hospitals, without Medical Schools, supported by Voluntary Contributions (*continua*).

GENERAL HOSPITALS	Dividends and Invested Property.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Pro-bationers' Payments.	Miscellaneous Receipts.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>Scotch.</i>											
Dundee Royal Infirmary ..	3,269 15 7	1,161 14 10	4,138 4 10	..	1,764 0 0	..	..	296 2 4	..	59 8 5	10,669 6 0
Greenock Hospital and Infirmary ..	213 15 5	1,123 13 1	2,715 11 10	..	59 2 6	..	..	414 9 7	..	15 13 5	4,542 5 10
Aberdeen Royal Infirmary ..	1,440 2 2	3,282 13 1	..	..	522 14 6	..	..	69 7 6	..	..	5,284 17 3
Paisley Infirmary ..	682 12 3	1,043 14 0	1,315 8 0	..	555 10 0	..	..	264 13 0	..	25 8 4	3,887 15 7
Kilmarnock Infirmary ..	320 18 7	920 3 5	266 16 5	..	517 10 0	..	..	107 6 6	..	1 11 0	2,147 5 11
Perth County & City Infirmary ..	966 13 5	581 12 6	1,055 5 1	..	222 0 0	..	..	..	..	..	2,825 11 0
Dumfriesshire and Galloway Royal Infirmary ..	583 0 5	656 12 6	531 1 2	..	573 12 9	..	..	34 1 9	..	35 3 2	2,413 11 9
Ayr County Hospital ..	41 7 2	617 13 6	601 4 6	..	..	..	..	238 1 5	..	29 18 2	1,528 4 9
Arbroath Infirmary ..	449 8 9	351 6 9	..	0 15 5	..	..	..	0 14 0	..	..	802 4 11
	7,967 13 9	6,105 3 10	10,666 11 10	0 15 5	4,224 9 9	..	..	1,424 16 1	..	167 2 6	34,120 13 0
<i>Irish.</i>											
South Charitable Infirmary & County Hospital, Cork ..	387 5 2	413 19 8	1,599 3 0	..	2 2 0	..	..	81 9 7	..	..	2,393 19 5
Queen's County Infirmary ..	..	* 1,195 14 9	..	..	..	..	..	170 0 0	..	35 15 10	1,401 10 7
Town County Infirmary ..	634 7 8	29 4 0	600 0 0	..	..	..	..	17 5 0	..	2 1 6	1,282 18 2
Fermanagh County Infirmary ..	519 11	79 16 0	850 0 0	..	..	..	..	51 9 8	..	3 16 6	991 2 1
Donegal County Infirmary ..	102 6 5	9 9 0	1,000 0 0	..	..	..	..	21 15 0	..	..	1,133 10 5
	1,129 19 2	532 8 8	3,959 3 0	..	2 2 0	..	..	341 19 3	..	41 13 10	7,203 0 8
		1,195 14 9	..	..	..	..	..	..	..	..	..

* Includes Hospital Sunday.

METROPOLITAN AND PROVINCIAL SPECIAL HOSPITALS.

Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Special Hospitals supported by Voluntary Contributions. They have 3,847 Beds, and a total Income of £227,669 11s. 3d.

SPECIAL HOSPITALS.	Dividends and Invested Properties.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Probationers' Payments.	Miscellaneous Receipts.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
CONSUMPTION—London.											
Brompton Consumption Hosp.	4,803 7 0	8,032 18 4	4,775 11 7	25 15 7	5,101 0 7	585 9 0	1,718 15 0	..	11 0 0	101 15 10	25,155 12 11
City of London, Victoria Park.	4,28 18 3	2,513 3 10	4,314 2 9	104 3 4	1,124 2 0	273 15 0	905 5 6	..	..	49 11 10	9,713 2 6
Royal Hospital for Diseases of the Chest	262 3 2	1,514 5 6	1,09 15 1	95 15 0	301 11 6	140 3 0	385 8 4	..	..	1 1 5	3,710 3 0
Hospital for Consumption, Hampstead	80 0 0	1,654 5 6	2,552 1 9	..	42 11 0	140 7 0	427 1 8	15 15 0	..	1 10 0	4,913 11 11
Central London Throat and Ear Hospital	29 5 0	43 17 6	302 2 9	..	24 7 0	76 3 0	57 5 10	1,400 4 6	..	..	2,321 6 4
	5,603 13 5	14,146 1 8	12,953 13 11	225 13 11	6,593 12 10	1,215 17 0	3,493 16 4	1,415 19 6	11 0 0	153 19 1	45,813 16 8
Provincial.											
Royal National Hospital for Consumption, Ventnor ..	1,723 5 2	1,680 18 5	2,212 14 5	50 12 11	3,794 16 3	131 5 0	208 6 8	2,936 0 0	..	37 14 0	12,775 12 10
CHILDREN—London.											
Great Ormond Street	402 8 1	2,860 1 11	3,966 13 10	49 0 5	2,793 5 5	180 14 0	781 5 0	380 9 0	..	39 4 2	11,543 1 10
East Lond. Hosp. for Children	168 15 7	2,094 6 1	5,134 15 10	46 2 0	1,111 15 6	188 12 0	410 13 4	..	103 0 0	28 12 0	8,263 19 0
Victoria Hosp. for Children	102 5 3	1,594 14 0	1,155 13 10	46 2 0	1,111 15 6	188 12 0	410 13 4	..	238 0 0	8 1 0	4,760 1 0
Evelina Hosp. for Children	564 15 5	2,533 8 6	1,555 6 7	17 0 0	57 12 0	60 8 0	368 15 0	..	134 8 0	63 2 3	4,450 4 9
N.-Eastern Hosp. for Children	213 19 6	1,199 13 8	3,225 2 9	125 0 10	..	61 4 0	322 18 4	692 7 10	24 3 0	..	5,704 9 11
Paddington Green Children's Hospital	144 10 3	981 2 6	1,341 3 3	66 5 9	717 11 0	36 14 0	161 9 2	112 2 1	..	43 12 5	3,604 10 5
	1,686 14 1	11,173 6 8	15,949 15 3	225 0 0	3,716 10 5	531 12 0	2,505 4 2	1,184 18 11	499 11 0	180 14 11	37,653 7 5
Provincial.											
General Hosp. and Disp. for Sick Children, Manchester ..	1,880 10 3	2,164 2 6	187 13 0	49 15 11	100 0 0	1,033 7 11	1,232 1 7	1,232 1 7	125 0 0	32 8 9	6,804 19 11
Birmingham and Midland Free Hosp. for Sick Children ..	406 10 4	1,532 13 0	825 19 9	15 7 0	..	660 7 6	..	12 16 2	51 3 0	519 8 6	4,024 5 3
Derbyshire Hosp. for Sick Child.	94 14 5	1,947 12 5	12 5	10 9 4	60 0 0	..	..	..	..	0 12 6	2,113 8 8
	2,381 15 0	3,696 15 6	1,013 12 9	75 12 3	160 0 0	660 7 6	..	1,244 17 9	176 3 0	552 9 9	12,942 13 10
		1,947 12 5			1,033 7 11						

• Includes Legacies.

† Includes Collecting Cards.

METROPOLITAN, PROVINCIAL AND SCOTCH SPECIAL HOSPITALS (continued).
 Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Special Hospitals supported by Voluntary Contributions (continued).

SPECIAL HOSPITALS.	Dividends and Interest on Properties.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Proportioners' Payments.	Miscellaneous Receipts.	Totals.
<i>CHILDREN - continued.</i>											
<i>Scotch.</i>											
Aberdeen Hosp. for Sick Child.	£ s. d. 101 18 2	£ s. d. 755 16 0	£ s. d. 688 3 10	..	..	..	..	£ s. d. 5 5 0	£ s. d. 25 4 0	£ s. d. 21 19 9	£ s. d. 1,598 6 9
Royal Edinburgh Hospital for Sick Children	456 16 5	3,199 4 3	535 10 2	..	480 0 0	..	..	..	14 0 0	4 1 11	4,684 12 9
Glasgow Hosp. for Sick Child.	495 12 0	1,562 9 6	1,117 3 7	..	397 1 7	..	..	..	25 2 0	..	3,597 8 8
1,054 6 7	5,517 9 9	2,340 17 7	..	877 1 7	..	..	..	5 5 0	64 6 0	26 1 8	9,885 8 2
<i>WOMEN & CHILDREN - Lond.</i>											
Maritan Free	..	1,711 16 0	2,120 7 4	..	581 5 1	56 2 0	479 3 4	..	..	23 10 6	4,972 4 3
Royal Hospital for Children and Women	224 19 2	924 10 0	1,347 7 8	..	41 18 9	87 18 0	229 3 4	..	..	..	2,855 16 11
Grovenor Hospital for Women and Children	8 11 8	465 3 8	..	..	17 11 0	29 11 0	83 6 8	472 2 9	..	6 0 11	1,082 7 8
233 10 10	2,636 6 0	3,457 15 0	..	640 14 10	173 11 0	791 13 4	472 2 9	..	..	29 11 5	8,910 8 10
<i>Provincial.</i>											
Bristol Hospital for Sick Children and Women	124 17 11	1,109 1 6	1,120 12 7	135 5 10	201 17 6	..	..	40 11 6	42 0 0	18 12 2	2,792 19 0
<i>WOMEN - London.</i>											
Hospital for Women, Soho	476 16 6	1,496 18 6	1,248 3 6	5 7 10	2,635 2 1	57 12 0	416 13 4	1,248 13 8	..	..	7,585 7 5
Chelms Hosp. for Women	115 1 1	591 10 0	605 7 10	..	17 19 1	30 5 0	130 4 2	588 3 6	..	38 17 3	4,854 17 1
New Hospital for Women	591 17 7	4,099 18 0	4,069 18 2	5 7 10	2,613 1 2	87 17 0	546 17 6	567 15 9	..	25 7 9	2,083 10 8
1,710 18 6	204 4 0	163 1 5	..	..	..	..	..	..	..	..	..
1,116 16 7	340 13 0	249 17 6	..	..	..	..	..	..	..	..	..
532 7 3	345 14 0	92 19 6	4 2 10	8 15 6	..	17 14 0	62 10 0	310 6 6	1,066 11 6	7 19 7	2,032 18 0
3,667 4 2	2,239 7 6	1,312 8 8	4 2 10	545 12 10	86 17 0	463 10 10	38 6 9	1,129 13 0	55 14 2	9,482 17 9	..
<i>LIVING-IN - London.</i>											
Queen Charlotte's Living-in, City of London	247 1 10	1,342 16 6	806 10 3	..	536 17 4	42 14 0	312 10 0	13 8 9	..	33 5 9	3,335 4 5
General Living-in Hospital	1,710 18 6	204 4 0	163 1 5	..	..	..	..	21 7 6	..	14 8 10	2,114 0 3
British Living-in, St. Giles's	532 7 3	345 14 0	92 19 6	4 2 10	8 15 6	17 14 0	62 10 0	310 6 6	1,066 11 6	7 19 7	2,032 18 0
* Includes Boxes.	3,667 4 2	2,239 7 6	1,312 8 8	4 2 10	545 12 10	86 17 0	463 10 10	38 6 9	1,129 13 0	55 14 2	9,482 17 9

METROPOLITAN, PROVINCIAL, SCOTCH AND IRISH SPECIAL HOSPITALS (*continued*).
Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Special Hospitals supported by Voluntary Contributions (continued).

SPECIAL HOSPITALS.	Dividends and Invested Property.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Probationers' Payments.	Miscellaneous Receipts.	Totals.
<i>Irish.</i>	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>LYING-IN continued.</i>											
<i>Irish.</i>											
Rotunda Lying-in, Dublin ..	787 6 1	1,370 10 0		..	300 0 0	..	..	281 10 0	190 0 10	..	2,929 15 11
Coombe Lying-in, Dublin ..	184 9 11	1,030 0 9		..	25 0 0	..	..	56 8 6	..	..	1,296 9 2
	972 6 0	2,400 19 9		..	325 0 0	..	..	337 18 6	190 0 10	..	4,226 5 1
<i>OPHTHALMIC—London.</i>											
Royal London Ophthalmic, Moorfields ..	938 13 8	805 1 8	1,901 19 9	..	476 6 0	..	..	..	..	59 0 3	4,181 1 4
Western Ophthalmic ..	112 11 9	134 9 6	257 18 1	..	..	..	..	185 9 0	..	0 3 0	710 11 4
Royal S. London Ophthalmic ..	84 17 4	285 10 0	267 16 7	41 12 10	..	62 8 0	93 15 0	..	..	5 6	841 10 3
Central London Ophthalmic ..	34 2 6	142 3 6	605 14 0	9 6 8	..	49 17 0	67 14 2	165 6 5	..	19 16 4	1,094 0 7
	1,170 5 3	1,387 10 8	3,053 8 5	50 19 6	476 6 0	112 5 0	161 9 2	350 15 5	..	84 4 1	6,827 3 6
<i>Provincial.</i>											
West of England Eye Infirmary, Exeter ..	407 18 3	490 4 6	136 8 11	1 14 2	178 6 6	..	..	32 15 0	..	..	1,247 7 4
<i>Scotch.</i>											
Glasgow Eye Infirmary ..	111 4 6	1,045 7 11	1,823 15 4	112 3 7	831 1 5	..	..	..	..	..	3,023 12 9
<i>Irish.</i>											
St. Mark's Ophthalmic, Dublin	106 15 11	662 10 4		..	104 6 8	..	..	758 10 8	..	42 4 11	1,674 8 6
National Eye and Ear Infirmary, Dublin ..	6 0 8	492 18 5		..	..	..	133 8 4	472 5 5	..	0 12 0	1,105 4 10
	112 16 7	1,155 8 9		..	104 6 8	..	133 8 4	1,230 16 1	..	42 10 11	2,779 13 4

METROPOLITAN AND IRISH SPECIAL HOSPITALS (continued).
 Table showing the Income of the Metropolitan, Provincial, Scotch, and Irish Special Hospitals supported by Voluntary Contributions (continued).

SPECIAL HOSPITALS.	Dividends and Invested Property.	Subscriptions.	Donations.	Boxes.	Legacies.	Hospital Saturday.	Hospital Sunday.	Patients' Payments.	Probationers' Payments.	Miscellaneous Receipts.	Totals
<i>FEVER—London.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>
London Fever Hospital ..	1,666 2 0	2,449 8 2	3,399 6 6	..	397 8 5	36 2 0	520 16 8	1,956 8 0	..	150 4 6	10,485 16 3
<i>Irish.</i>											
Cork Street Fever Hospital, Dublin ..	1,325 9 1	3,452 16 4	..	..	2,740 12 2	..	..	244 14 0	..	184 1 1	7,747 12 8
<i>HEART DISEASE AND ENLARGEMENT—London.</i>											
National Hospital for the Paralyzed and Palsied ..	1,230 5 11	1,834 10 6	3,452 19 5	..	1,220 19 3	69 12 0	531 5 0	1,882 7 3	117 5 0	17 14 5	10,467 17 9
H. J. Kennedy & Co. Analysis ..	18 18 0	489 15 0	708 1 3	32 19 10	371 10 3	61 13 0	104 3 4	999 5 0	..	..	2,758 5 8
National Hospital for Diseases of the Heart and Paralysis ..	..	887 6 9	663 17 2	..	..	80 6 0	140 12 6	211 12 6	..	2 13 0	1,986 7 11
<i>MISCELLANEOUS—London.</i>											
Royal Orthopaedic Hospital ..	1,258 3 11	3,212 1 3	4,955 17 10	32 10 10	1,594 9 6	241 11 0	776 0 10	3,093 4 9	117 5 0	20 7 5	15,212 11 4
National Orthopaedic Hospital ..	367 18 5	723 5 6	403 8 6	6 1 4	366 17 9	..	..	99 10 0	..	21 13 0	2,088 14 6
London Lock Hospital ..	..	133 13 0	409 9 10 ^a	..	..	..	..	625 0 6	..	..	1,228 3 4
Cancer Hospital, Brompton ..	1,324 7 7	1,692 1 6	3,026 15 6	..	483 7 0	108 8 0	322 18 4	1,163 12 0	..	0 10 0	5,638 19 7
St. Mark's Hospital for Fish-tail, &c. ..	796 5 10	416 12 0	334 16 6	18 12 5	7,425 10 5	124 4 0	520 16 8	..	..	6 0 0	14,120 1 8
Royal Ear Hospital ..	..	143 11 6	..	5 10 10	2,479 18 7	59 17 0	104 1 4	..	..	15 9 11	4,225 13 7
<i>Irish.</i>											
Westmoreland Lock Hospital, Dublin ..	2,488 11 10	4,034 2 0	6,826 4 7	39 4 7	10,755 19 9	292 9 0	958 4 8	3,469 16 6	..	43 12 11	28,012 17 4
	..	..	2,600 0 0	..	..	..	..	..	..	263 9 9	2,863 9 9

^a Includes Hospital Saturday and Sunday Fund.

TOTALS AND ANALYSES OF FOREGOING TABLES.

Table giving the Total Amounts received by the Metropolitan, Provincial, Scotch, and Irish Hospitals.

MEDICAL SCHOOLS.						
	£.	s.	d.	£.	s.	d.
LONDON	401,610	0	0			
PROVINCIAL	139,938	14	5			
SCOTCH AND IRISH	160,101	18	0			
	701,670	12	5			
GENERAL.						
LONDON	55,830	18	9			
PROVINCIAL	393,772	7	7			
SCOTCH	34,130	13	0			
IRISH	7,203	0	8			
	400,936	0	0			
SPECIALS.						
<i>Consumption.</i>						
LONDON	45,813	16	8			
PROVINCIAL	12,775	12	10			
	58,589	0	6			
CARRY FORWARD	1,161,106	11	11			
Brought forward	£.	s.	d.	£.	s.	d.
	1,161,106	11	11			
<i>Children.</i>						
LONDON	37,653	7	5			
PROVINCIAL	12,842	10				
SCOTCH	9,835	2				
	60,481	9	5			
<i>Women and Children.</i>						
LONDON	8,910	8	10			
PROVINCIAL	2,792	19	0			
	11,703	7	10			
<i>Worms.</i>						
LONDON	14,523	15	2			
	14,523	15	2			
<i>Lying-in.</i>						
LONDON	9,482	17	9			
IRISH	4,220	5	1			
	13,709	2	10			
CARRY FORWARD	1,261,613	17	2			
Brought forward	£.	s.	d.	£.	s.	d.
	1,261,613	17	2			
<i>Ophthalmic.</i>						
LONDON	6,827	3	6			
PROVINCIAL	1,247	7	4			
SCOTCH	3,953	13	0			
IRISH	2,779	13	4			
	14,777	16	11			
<i>Fever.</i>						
LONDON	10,485	16	3			
IRISH	7,747	12	8			
	18,233	8	11			
<i>Heart Disease and Epilepsy, &c.</i>						
LONDON	15,212	11	4			
	15,212	11	4			
<i>Miscellaneous.</i>						
LONDON	28,042	17	4			
IRISH	2,663	9	9			
	30,906	7	1			
GRAND TOTAL	1,340,744	1	5			

Table giving the Sources and Amounts of Income of Metropolitan, Provincial, Scotch, and Irish General and Special Voluntary Hospitals, with percentages of each to Totals and Sub-heads compared, for the year ending December 31st, 1889.

[illegible]

In the cases of some of the Irish Hospitals, the Income from the Hospital Sunday Fund has been included in Donations.

† In some cases the Amounts placed in the Boxes are included in Donations,
* Subscriptions and Donations,
+ See No's † and ‡.

* Subscriptions and Donations.

See No. 5† and ‡.

AMERICAN AND FOREIGN HOSPITALS.

In the United States of America, and also to a certain extent in the British Colonies, patients' payments may be regarded as the most fruitful source of revenue. In America many of the best hospitals have been erected and are at present maintained from funds supplied by the different churches or sects. Thus, Jewish hospitals, Presbyterian hospitals, Methodist hospitals, Episcopalian hospitals, and others are all to be met with, and most of them are flourishing and prosperous. In a relatively new country like America, where there was an absence of endowment, each community had to provide for the maintenance of its own hospitals year by year, and consequently large invested funds are rare. In Great Britain and Ireland the funds derived from invested property are very large. Thus, as will be seen on reference to the foregoing tables, 47·43 per cent. of the total income of the general hospitals in London is derived from this source, though only 10·35 per cent. of the total revenue is supplied in this way in the case of special hospitals in London. In the provinces invested property yields 22·04 per cent. of the total income of general hospitals, and 15·59 per cent. of that of special hospitals; 14·57 per cent. of the total income of Scotch general hospitals, and 16·59 per cent. of the total income of Irish general hospitals is derived from invested property, whereas 8·44 per cent. of the total income of Scotch special hospitals, and 13·68 per cent. of the total income of the Irish special hospitals, is derived from the same source. With one or two notable exceptions, no such results are to be met with in America, for the reasons already given. Many of the great Continental hospitals, however, depend very largely for their revenues on invested property, and the balance is not infrequently made up by the Government or municipal or local authorities, who for the most part exercise considerable control over the management and administration of these institutions. In the British colonies it is customary for the Government to supplement the income of the hospitals to the necessary extent, although in the case of the larger colonies many institutions are supported mainly by voluntary contributions.

It is not necessary to elaborate these points here, however, as those who are interested in them will find abundant evidence of the facts mentioned in this brief summary in the chapters devoted to the institutions of various American and foreign countries and printed elsewhere in this book.

ESTIMATES AND AN ANNUAL BUDGET.

No doubt a system which depends upon voluntary subscriptions for its maintenance is apt to become unbusinesslike in detail. There is a temptation to those responsible for the management of institutions conducted upon this system to adopt 'happy-go-lucky' for their motto. In other words, it is natural that where income depends upon voluntary gifts the managers should assume a hopeful tone, and believe that if contributions are scanty at the beginning of the year they will probably increase and multiply before its termination. A long experience has convinced the writer that 'happy-go-lucky' is a dangerous motto for the managers of voluntary charities, and that if sound business is not introduced and maintained under all circumstances and conditions, however large or however small an institution may be, funds are likely in the long run to decrease, while the expenditure will increase out of all proportion to the needs. In other words, business principles must prevail in all systems of philanthropy worthy of public support. It is wrong in principle, and bad business to boot, for the committee of a charitable institution to start its financial year without having first made up its mind how much revenue it has a right to anticipate, and arranged to keep its expenditure well within the limits of its probable income.

We take it to be one of the most important principles of charitable finance that each year should be commenced with estimates of income and expenditure, and that the first duty of the managers at their first meeting in each year should be to consider these estimates and to provide that they should not incur a greater expenditure on the whole than the means placed at their disposal warrant. In America we were very much struck with the adoption of this system, and its gradual development into a plan which provided that at the first meeting of the trustees in each financial year estimates should be presented. These estimates were carefully investigated and considered. When they had been adjusted the next business was to decide how many of the available beds in the hospital should be set apart as free beds and how many as pay beds. In other words, the institution had a sliding scale between the pay and the free departments, and the number of free beds was governed by the amount of charitable revenue plus the profits upon the working of the pay beds which the committee had to dispense. It may be

said, and we have heard it said with great force by some of the most enterprising of the managers of our voluntary charities, that it is a wrong principle to start with an assumption that the free gifts will be small. We are not prepared to dispute that there is a good deal to be said in favour of this view. We maintain, however, with assured certainty of experience, that the public will give more largely to those institutions which are conducted upon business principles than they will to others that afford little or no evidence that the management is sound and businesslike. The late Mr. Spurgeon, who raised an enormous sum in the whole for the many excellent objects to which he devoted his life, always made it the cardinal principle to ask for a definite sum, promising, when that sum was forthcoming, but not until then, that the work specified in the appeals should be undertaken, carried through to a successful issue, and maintained in efficiency from thenceforward. We take it that where you have to choose between the policy of lavish expenditure, in the hope that the public will come forward and subscribe the funds, and the policy of precise estimates and clear statements, based upon a declaration that when a given sum is subscribed the work shall be done, there can be no doubt that in the end the second policy will be found the most popular, the most productive, and the best. For these reasons we would venture to recommend to the managers of every medical institution, whether it be a hospital, or a dispensary, or a convalescent home, or a nursing institution, or whatever it may be, that the policy of estimates and of free and pay beds with a sliding scale, is the one which will command and keep public confidence, and secure the maximum of means and also the maximum of efficiency.





CHAPTER VIII.

HOSPITAL EXPENDITURE AND ECONOMY.

FEW questions have a more important bearing upon the welfare of hospitals than the cost at which they are conducted. Yet few matters have been more neglected, so far as any combined or intelligent action on the part of the managers is concerned, than this one of relative cost. We might make many startling statements in regard to this question of expenditure; but few can be more forcible or better calculated to attract and fix attention than the following. The average weekly cost per in-patient, calculated on the three years ending 1889, *for provisions alone*, at the eleven metropolitan voluntary hospitals having medical schools was 8s. 2d.; whereas *the whole cost* of maintaining patients in our county and borough asylums, according to the latest report of the Commissioners in Lunacy, is on an average only 8s. 10½d. per head, and if the small borough asylums were omitted the average would be reduced to 8s. 7¾d. These figures are positively startling, especially when it is remembered that those relating to asylums include not only the whole cost of maintenance (i.e. the whole expenditure under that head), but also the salaries of all the officers, medical and lay, as well as the cost of supplying clothing to the patients. Of course we are prepared to admit that the class of case received into a clinical hospital is infinitely more costly than a case of lunacy; but still, when all has been said that can properly be said upon this point, the fact remains that the cost of supplying an in-patient in a large general hospital with provisions alone is, on an average, as great as the whole expenditure under every head entailed by the adequate treat-

ment and care of a lunatic in an English county or borough asylum. Hospital managers might well spend time and thought in making themselves familiar with the management of English asylums, because no amount of argument will convince any reasonable person that the state of matters in regard to expenditure here brought to light is either satisfactory or even justifiable.

We have prepared at great cost of time and labour a series of comparative tables, showing on a three years' basis (1887, 1888, and 1889) the average expenditure incurred in maintaining each occupied bed, the average cost of each in-patient, and the proportion of in-patients to each bed occupied in the principal English, Scotch, and Irish hospitals. The average cost of each bed occupied is arrived at by dividing the total expenditure, after deducting one shilling for each out-patient and all extraordinary outlay of every kind, by the daily average number of beds occupied during the three years in question, and the average cost of each bed occupied on the total expenditure is arrived at by dividing the total expenditure, without any deductions, also by the average number of beds occupied.

Before referring to details in the tables it would be well to say something as to difficulties attending any attempt to reduce these figures to an identical basis. So far it has been impossible to get hospital authorities to agree to a fixed sum representing the actual cost of each out-patient treated. All sorts of views prevail on this subject; but a close study of hospital reports, and an intimate knowledge of the actual items involved in the adequate maintenance of the out-patient department, convince us, that for ordinary hospitals a deduction of one shilling per out-patient from the total expenditure fairly represents the actual money value of the services rendered to each applicant for relief in the out-patient department of an ordinary general hospital in this country at the present time.

Very few hospitals attempt to keep a separate account of the actual expenditure (*a*) upon out-patients and (*b*) upon in-patients. The Westminster and some other hospitals in London have, however, attempted this difficult task, and the figures bring the cost of each out-patient to a sum of about one shilling per head. In some cases, however, as, for example, at the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, London, where the out-patient treatment necessitates the application of galvanism, the

use of electric and other baths, and other appliances involving special attendance and outlay, the cost of each out-patient is estimated at from four to five shillings. Roughly speaking, at a great general hospital with a large out-patient department, it is estimated by those whose opinion may be taken as a fair indication of the actual facts, that the cost of treating one thousand out-patients is about equal to the expenditure upon one occupied bed, and that the cost of treating two hundred lying-in patients at their own homes through the maternity department entails about an equal cost. In other words, the out-patients at a lying-in hospital may be properly estimated to cost on an average five shillings per head.

As regards the cost of each in-patient and each occupied bed, great difficulties arise in securing an identical basis for fair comparison between different hospitals, owing to the immense variety of practice in the various institutions as to the number and kind of articles both of food and clothing which each patient is called upon to supply at his own expense. At some hospitals, for instance, which have nursing homes, the cost of the food of the nurses' staff and everything appertaining to the maintenance, is deducted from the general expenditure and placed in a separate account. This is not the invariable practice, but it is becoming more and more general. Hence great care has to be exercised to ascertain how far nurses' and patients' private means have to be devoted to the supply of food and other necessities in particular hospitals. Again, at a great hospital like the London, it has been the practice, we believe, from time immemorial not to supply poultry or chickens to any of the patients, and so a considerable saving is effected in the outlay for food. At several metropolitan hospitals and some provincial institutions the patients are called upon to provide their own tea, butter, and sugar, unless they produce evidence of a convincing character to prove that they are too poor to do so, when these articles are provided at the cost of the hospital. Other authorities, again, insist upon the patients bringing their own towels and linen with them, and the patients are also called upon to defray the expense of washing these articles. In our view it is a bad system which permits a patient to provide any article of food or linen. The saving in cost is not material, and any advantages which the institution may derive from the enforcement of these regulations is more than neutralised by the disadvantages entailed on the sick, who may thus have to consume unsuitable or poor

food, and at the same time have to put up with avoidable discomfort caused by the inadequacy of the linen which each provides for individual use. The best-managed institutions, where the managers take a proper pride in the administration, absolutely decline to permit any article of food to be introduced from outside for the use of the patients, and would scorn a proposal to permit them to bring with them any linen except personal clothing, and even this is in many cases rendered unnecessary, owing to the large stock of such articles to be found in the hospital linen-room.

The Lords' Committee on Metropolitan Hospitals has done good service by issuing a schedule of questions, occupying eight foolscap pages, the answers to which will for the first time in the history of the hospitals of this country enable those interested to ascertain exactly the actual cost of maintenance at the various institutions, and so enable an identical basis of comparison to be at last arrived at. Once again we regret to say that several institutions are not yet fully alive to the importance of having an adequate diet table for the nursing and resident staff. The plainer the food provided, within reasonable limits, the better it necessarily is for those who have many and anxious duties to perform which entail a large amount of labour upon those employed. There is no economy so false as that which, from mistaken parsimony, prevents the maintenance of a liberal table for every section of the resident staff. Sound health is essential if the best work is to be given by those employed. Where there is only one kitchen, and hundreds of people have to be fed every day, it almost necessarily follows that the cooking is relatively bad, and so the best of food may very often be sent to table in a state far from appetising. In such a case the amount of waste entailed is out of all proportion to the small extra outlay which a better system and a separate kitchen would involve. Unfortunately, in the older institutions habit becomes second nature, and so, once introduced, a system of rough cooking in bulk for all the inmates, including the staff and patients, will always prevail. In such cases, year after year no improvement takes place, and no one seems to realise that the existing state of affairs is not only uneconomical, but largely inhuman, and contrary to the best teachings of sanitary science.

We have taken a great deal of trouble, by personal inspection and inquiry, to form an accurate judgment of the relative efficiency of the principal hospitals in each section of the United

Kingdom of Great Britain and Ireland. It will be seen presently that the difference in cost between English metropolitan and provincial hospitals is surprisingly great ; but the differences brought out by such a comparison are altogether unimportant when compared with those brought to light by a comparison between the cost of an occupied bed in a metropolitan or provincial hospital in England, and one in a Scotch or Irish institution. We should say, as the result of our inquiries and personal experience, that it may be taken for granted that Scotch hospitals feed their patients well. This being so, the differences referred to should attract and fix the attention of those immediately concerned, and bring about a conference between the various authorities, which must ultimately lead to an improvement in those institutions at the bottom of the scale, where the diet or economy of the wards is relatively inadequate, and those at the top of the scale, where, from want of attention to detail on the part of the honorary medical staff or their immediate subordinates, extravagance in certain directions is undoubtedly to be met with. We take it that a hospital containing one hundred and fifty beds, of which one hundred and forty are constantly occupied, can be maintained in a high state of efficiency in this country at the present time by an expenditure not exceeding 70*l.* per occupied bed. In some of the smaller institutions, where land is relatively cheap and a garden is attached to the hospital, the expenditure may be reduced by 10*l.* or so, to 60*l.* per occupied bed per annum. Taking these figures as a basis, we now ask a most careful consideration of the following tables, which show the actual expenditure at nearly all the chief English metropolitan and provincial, Scotch, and Irish hospitals.

The anomalies which these tables reveal, the relatively great expenditure at certain institutions, not only on provisions, but on domestic expenses, surgery and dispensary, and incidentals, should strike every thoughtful observer and bring about a careful investigation of the circumstances which have led to an outlay in directions which a more thrifty management would soon prove to be out of all proportion to the necessities and the welfare of the patients treated in their wards. No one familiar with the subject will deny that some of the best-conducted of English hospitals show a moderate expenditure, whereas others seem to be managed on the principle that money is of little or no object, and that the more one can spend the better the subscribers ought to be pleased. If it be, as we believe it to be, that the best-

conducted hospital is the one which treats the greatest number of patients, in the fewest possible beds, at the smallest actual cost, in the shortest possible time, then several of our greatest hospitals must look to their laurels, or those who support them will be able to attend the annual meetings and insist upon an investigation, which must reduce expenditure enormously, and so indirectly secure much crisper administration than those institutions possess at the present time.

LONDON HOSPITALS,

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
London	781	635	8,344
Guy's	503	417	5,145
St. George's	352	304	4,032
Middlesex	310	250	2,715
St. Mary's	280	248	3,153
University College	208	176	2,768
King's College	206	159	1,913
Westminster	205	174	2,554
Charing Cross	177	136	1,835
Royal Free	150	134	1,893
London Homœopathic †	94	55	820
	3,266	2,688	35,392

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.			Alcohol.			Domestic Expenses.			Surgery and Dispensary.		
	Amount.	Average Cost per Bed occupied.		Amount.	Average Cost per Bed occupied.		Amount.	Average Cost per Bed occupied.		Amount.	Average Cost per Bed occupied.	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.	
London	14,890 14 9	23 9 0	1,463 13 4	2 6 1	7,258 11 10	11 8 8	7,992 11 11	12 11 8				
Guy's	6,189 3 5	14 16 10	397 0 3	0 19 0	4,866 17 1	11 13 5	4,772 2 5	11 7 8				
St. George's	7,227 5 2	24 2 1	986 2 0	3 4 11	4,233 19 4	13 18 6	2,914 0 7	9 11 8				
Middlesex	6,683 3 7	26 14 7	489 4 0	1 19 1	4,249 13 2	17 0 0	2,210 13 6	8 16 10				
St. Mary's	6,783 12 9	27 7 1	660 11 8	2 13 3	3,170 15 3	12 15 9	3,121 15 9	12 11 9				
University College	3,569 18 8	20 5 8	378 8 11	2 3 0	3,009 14 3	17 2 0	2,816 7 1	16 0 0				
King's College	4,274 9 9	26 17 8	291 18 1	1 16 8	4,080 8 11	25 13 3	2,239 9 0	14 1 8				
Westminster	3,810 12 5	21 18 0	285 8 2	1 12 9	2,182 13 2	12 10 10	1,506 4 0	8 13 1				
Charing Cross	3,053 4 0	22 9 0	303 4 7	2 4 7	2,564 9 6	18 17 1	1,718 3 3	12 12 8				
Royal Free	2,777 15 7	20 8 7	319 2 7	2 7 8	1,832 17 9	13 13 7	1,374 3 3	10 5 1				
London Homœopathic	1,736 0 3	31 11 3	68 4 10	1 4 10	950 6 8	17 5 7	371 8 1	6 15 1				
	61,056 0 4	22 14 3	5,642 18 5	2 2 0	38,400 6 11	14 5 9	30,986 18 10	11 10 7				

WITH MEDICAL SCHOOLS

(Average of Years 1887, 1888, and 1889.)

	No. of Out- patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
			£ s. d.	£ s. d.	£ s. d.	
102,382	2,229	74 1 1	89 16 0	5 12 9	13 to 1	
37,062	2,885	81 0 3	88 11 2	6 11 4	12 to 1	
24,676	416	80 6 5	92 3 10	6 1 2	13 to 1	
33,857	863	86 1 5	105 8 10	7 18 6	11 to 1	
15,759	562	77 9 10	85 9 0	5 14 7	13 to 1	
38,576	2,123	93 9 5	107 17 6	5 18 10	15 to 1	
18,186	715	101 6 6	126 8 6	8 6 8	12 to 1	
22,682	245	65 16 1	81 8 7	4 9 8	14 to 1	
20,367	70	93 19 8	101 9 5	6 19 3	13 to 1	
23,197	..	69 13 3	79 5 10	4 18 7	14 to 1	
9,925	..	72 12 2	84 4 0	4 17 5	15 to 1	
346,669	10,108	80 7 9	93 13 10	6 2 1	13 to 1	

* Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

† Average of years 1888 and 1889 only.

Expenditure under all Heads.

Salaries and Wages.				Pensions.				Repairs.				Extraordinary Expenses.				Incidental Expenses.				Total.	
Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.			
£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
14,660	12 9 23	1	9	509	6 8	0	16 0	2,769	10 11 3	14	8	4,880	3 11 7	13	8	2,998	19 0 4	14	6	57,024	5 1 6
11,748	2 5 28	3	1	6,128	19 11 3	1	9	2,988	11 3 7	3	4	1,295	2 0 3	2	1	3,435	12 9 8	4	9	36,929	11 6 1
6,609	8 7 21	16	1	293	15 6	0	19 3	2,159	0 0 7	2	0	2,374	2 5 7	16	2	1,108	18 2 3	12	11	28,026	11 9 9
5,912	15 6 23	13	0	191	7 7	0	15 3	1,211	2 0 4	16	11	3,149	14 1 12	12	0	2,263	3 11 9	1	1	26,360	17 4 9
4,268	6 6 17	4	2	108	6 8	0	8 8	673	4 6 2	14	3	1,186	3 7 4	15	8	1,219	11 10 4	18	4	21,192	8 6 6
5,786	13 9 32	17	7	..	..	..	..	1,010	2 8 5	14	9	606	12 7 3	8	11	1,808	5 9 10	5	6	18,986	3 8 8
3,728	13 4 23	9	0	..	..	..	..	1,029	2 5 6	9	5	3,081	7 6 19	7	7	1,376	3 5 8	13	1	20,101	12 5 9
3,407	14 2 19	11	8	50	0 0	0	5 9	561	6 3 3	4	6	1,584	13 11 9	2	2	780	2 6 4	9	8	14,168	14 7 5
4,061	6 7 29	17	3	14	3 4	0	2 1	774	7 11 5	13	10	..	..	..	..	1,311	9 3 9	12	10	13,800	8 5 5
2,806	11 10 20	18	11	25	13 4	0	3 10	515	13 6 3	17	0	130	17 0 0	19	6	882	11 11 6	11	9	10,625	6 9 9
734	19 5 13	7	3	..	..	..	..	87	15 7 1	11	11	141	5 10 2	11	5	541	0 6 9	16	9	4,631	1 2 1
63,745	4 10 23	14	4	2,479	13 0 0	18	5	13,379	17 0 4	19	6	18,430	2 10 6	17	1	17,725	19 0 6	11	11	251,847	1 1 1

LONDON GENERAL HOSPITALS,

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
Seamen's	225	189	2,211
Metropolitan	132	24	248
German	125	106	1,395
West London	101	84	1,300
Great Northern Central	57	53	673
Poplar Hospital for Accidents	50	36	691
North-West London	46	39	569
French	36	28	381
Miller Hospital	24	17	202
Blackheath and Charlton Cottage Hospital	18	9	111
Italian	15	11	218
	829	596	7,999

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.		Alcohol.		Domestic Expenses.		Surgery and Dispensary.	
	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Seamen's	4,063 6 9	21 10 0	407 7 11	2 3 1	1,417 14 6	7 10 0	909 9 6	4 16 3
Metropolitan	905 18 6	37 14 11	31 15 0	1 6 5	403 9 11	16 16 3	795 19 10	33 3 4
German	2,489 7 0	23 9 8	413 14 11	3 18 1	1,158 15 6	10 18 7	908 13 1	8 11 5
West London	1,503 8 4	17 17 11	201 0 4	2 7 10	828 14 7	9 17 4	967 6 7	11 10 4
Great Northern Central	1,110 19 1	20 19 3	59 11 3	1 2 6	772 17 1	14 11 8	722 9 1	13 12 7
Poplar Hospital for Accidents	871 7 5	24 4 1	68 5 10	1 17 11	265 14 10	7 7 7	410 4 1	11 7 11
North-West London	1,038 12 10	26 12 8	106 12 9	2 14 8	368 15 8	9 9 1	435 7 8	11 3 3
French	784 0 2	28 0 0	.. †	.. †	300 2 4	10 14 4	301 2 3	10 15 1
Miller Hospital	626 0 4	36 16 6	73 3 2	4 6 1	358 18 6	21 2 3	1,100 1 10	64 14 3
Blackheath and Charlton Cottage Hospital	301 5 2	33 9 6	21 12 4	2 8 0	129 10 0	14 7 9	57 3 7	6 7 1
Italian	288 9 3	26 4 6	22 17 2	2 1 7	120 0 10	10 18 3	121 1 9	11 0 2
	13,982 14 10½	23 9 3½	1,406 0 8½	2 7 7½	6,124 13 9	10 5 6	6,728 19 3	11 5 10

† Included in Provisions.

WITHOUT MEDICAL SCHOOLS.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
6,000	..	57 18 11	59 10 8	4 19 0	11 to 1
16,270	3	141 0 0	174 17 11	13 12 11	10 to 1
18,068	..	68 14 0	77 4 5	5 4 4	13 to 1
19,005	..	55 16 2	70 14 1	3 12 1	15 to 1
12,763	..	77 1 9	90 8 11	6 1 5	13 to 1
10,632	..	70 4 3	84 19 7	3 13 1	19 to 1
12,951	..	68 7 7	84 19 8	4 13 9	14 to 1
3,436	..	80 1 3	86 3 11	5 17 8	14 to 1
13,744	878	148 14 8	189 3 1	12 10 4	12 to 1
397	..	86 7 9	88 11 11	7 0 1	12 to 1
2,495	..	62 13 0	74 17 10	3 5 9	18 to 1
115,761	881	70 4 6	80 11 1	5 4 8	13 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

Expenditure under all Heads.

Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.
Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
3,004 16 7	15 18 0	32 6 0	0 3 5	412 4 0	2 3 7	..	..	1,004 10 11	5 6 3	11,251 16 2
1,329 10 6	55 7 11	..	..	146 16 6	6 2 4	..	..	584 0 4	24 6 8	4,197 10 7
1,690 10 2	15 18 11	..	..	547 14 6	5 3 4	..	..	977 1 9	9 4 4	8,183 16 11
1,599 17 0	19 0 11	..	..	227 3 8	2 14 1	301 4 2	3 11 8	310 10 5	3 13 11	5,919 5 1
1,261 1 1	23 15 10	..	..	30 6 1	0 14 10	60 14 3	1 6 4	757 15 9	14 5 11	4,793 13 8
902 3 0	25 1 2	..	..	119 0 10	3 6 1	..	..	422 9 10	11 14 8	3,050 5 10
641 19 4	16 9 3	..	..	125 10 3	3 4 4	..	..	597 8 6	15 6 4	3,314 7 0
439 8 11	15 13 11	..	..	78 19 6	2 15 5	..	..	509 17 11	18 4 3	2,413 11 1
801 1 8	47 2 5	..	..	84 15 8	4 19 9	..	..	171 12 4	10 1 11	3,215 13 6
130 1 4	14 9 0	..	..	18 5 10	2 0 8	..	..	139 8 9	15 9 10	797 7 0
111 16 8	1 6 11	8 1 0	0 8 9	82 16 11	7 10 7	..	..	85 19 8	7 16 4	843 3 3
11,014 6 3	19 19 10	40 7 0	0 1 4	1,382 13 9	3 3 2	370 18 5	0 12 5	5,560 16 2	9 6 7	48,011 10 1

§ Approximate. Alcohol being included in Provisions in one case.

LONDON SPECIAL HOSPITALS—

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
Brompton Consumption	326	255	1,505
City of London, Victoria Park	164	108	942
Royal Hospital for Diseases of the Chest	80	39	372
Hospital for Consumption, Hampstead	46	40	328
Central London Throat and Ear Hospital †	16	13	267
	632	455	3,414

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.				Alcohol.				Domestic Expenses.				Surgery and Dispensary.			
	Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.		
	£ s. d.	£ s. d.			£ s. d.	£ s. d.			£ s. d.	£ s. d.			£ s. d.	£ s. d.		
Brompton Consumption	7,225 13 5	28	6	9	562 9 11	2	4	1	3,718 14 3	14	11	8	2,587 6 1	10	2	11
City of London	3,224 19 4	29	17	2	274 6 4	2	10	9	1,301 0 9	12	0	11	1,000 12 10	9	5	3
Royal Hospital for Diseases of the Chest } ..	1,223 15 10	31	7	7	..*	..*			740 13 5	18	19	10	908 8 10	23	5	10
Hospital for Consumption, Hampstead } ..	1,099 15 8	27	9	11	61 17 10	1	10	11	539 9 7	13	9	9	360 14 2	9	0	4
Central London Throat and Ear Hospital } ..	437 5 6	33	12	9	..*	..*			273 0 9	20	0	0	417 4 8	32	1	11
	13,211 9 9	29	0	9	898 14 1	19	6		6,572 18 9	14	8	11	5,274 6 7	11	11	10

* Included in Provisions.

CONSUMPTION.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
13,615	..	£ s. d. 87 16 3	£ s. d. 100 4 9	£ s. d. 14 17 7	6 to 1
15,501	..	82 16 10	93 10 4	9 10 0	9 to 1
5,438	..	115 11 0	122 10 5	12 2 3	9 to 1
2,945	..	108 1 10	111 17 5	13 3 10	8 to 1
5,942	..	127 5 4	150 2 4	6 3 11	20 to 1
43,441	..	91 18 7	103 5 8	12 5 1	7 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

‡ Average of two years ending March 25, 1888 and 1890.

Expenditure under all Heads.

Salaries and Wages.						Pensions.						Repairs.						Extraordinary Expenses.						Incidental Expenses.						Total.		
Amount.		Average Cost per Bed occupied.				Amount.		Average Cost per Bed occupied.				Amount.		Average Cost per Bed occupied.				Amount.		Average Cost per Bed occupied.				Amount.		Average Cost per Bed occupied.						
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
4,928	8	11	19	6	7	460	6	8	1	16	1	1,097	6	0	4	6	1	2,614	17	3	10	5	1	2,493	3	9	9	15	7	25,688	6	3
2,548	18	11	23	12	0	..	..	..	563	7	6	5	4	4	378	0	10	3	10	0	808	17	10	7	9	10	10,100	4	4	..	..	..
1,425	0	11	36	10	9	..	..	..	76	18	0	1	19	5	..	..	..	403	10	4	10	6	11	4,778	7	4	..	..	..	..	..	..
963	7	11	24	1	8	..	..	..	144	3	2	3	12	1	..	..	..	1,305	9	8	32	12	9	4,474	18	0	..	..	..	..	..	..
517	6	0	39	15	10	..	..	..	50	3	10	3	17	2	..	..	..	256	10	7	19	14	8	1,951	11	4	..	..	..	..	..	..
10,383	2	8	22	16	5	460	6	8	1	0	3	1,931	18	6	4	4	11	2,902	18	1	6	11	7	5,267	12	2	11	11	746,993	7	3	..

† Approximate, as in two cases Alcohol has been included in Provisions.

LONDON SPECIAL HOSPITALS—

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No of In-patients
Great Ormond Street	162	103	1,006
East London Hospital for Children	102	78	1,102
Victoria Hospital for Children	72	62	765
North-Eastern Hospital for Children	61	45	612
Evelina Hospital for Children	60	49	514
Paddington Green Children's Hospital	27	22	378
	484	359	4,377

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.				Alcohol.				Domestic Expenses.				Surgery and Dispensary.			
	Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.		
	£ s. d.	£ s. d.			£ s. d.	£ s. d.			£ s. d.	£ s. d.			£ s. d.	£ s. d.		
Great Ormond Street	1,888 7 7	18 6 8		80 0 1	0 15 6		1,367 9 0	13 5 6	1,080 4 2	10 9 9						
East London Hospital for Children	1,677 11 0	21 10 1		178 1 9	2 5 8		1,292 13 5	16 11 5	728 7 11	9 6 9						
Victoria Hospital for Children	854 19 4	13 15 9		39 3 7	0 12 8		707 15 2	11 8 4	705 17 5	11 7 8						
North-Eastern Hospital for Children	782 15 0	17 7 10		29 0 7	0 12 11		731 11 3	16 5 1	777 9 9	17 5 6						
Evelina Hospital for Children	1,737 15 2	35 9 3		73 4 1	1 9 10		870 10 4	17 15 4	688 15 9	14 1 2						
Paddington Green Children's Hospital	451 17 9	20 10 10		20 1 2	0 18 3		259 4 4	11 15 8	448 19 5	20 8 2						
	7,393 5 10	20 11 11		419 11 3	1 3 4		5,229 3 6	14 11 4	4,429 14 5	12 6 9						

CHILDREN'S HOSPITALS.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied (Average.)
		£ s. d.	£ s. d.	£ s. d.	
£7,233	..	81 17 9	93 5 2	8 7 8	10 to 1
18,509	..	77 6 1	91 6 1	5 9 5	14 to 1
12,573	..	63 12 5	74 5 11	5 3 2	12 to 1
14,062	..	89 12 3	105 5 2	6 11 7	13 to 1
5,695	..	100 9 0	109 14 10	9 11 6	10 to 1
10,653	..	79 6 2	128 15 6	4 12 4	17 to 1
78,725	..	81 1 7	95 8 8	6 13 0	12 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

Expenditure under all Heads.

Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.
Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
2,451 13 0	23 16 1	236 2 8	2 5 10	800 4 2	7 15 5	309 14 10	3 0 2	1,392 1 3	13 10 4	9,605 16 9
1,660 16 2	21 5 10	..	..	392 16 5	5 0 8	166 13 4	2 2 8	1,024 15 0	13 2 9	7,121 15 0
1,266 11 2	20 8 7	3 6 8	0 1 1	325 5 4	5 5 1	13 4 11	0 4 3	670 4 7	10 16 2	4,586 8 2
1,684 7 9	37 8 7	..	..	319 15 7	7 2 1	..	..	410 13 9	9 2 6	4,735 13 8
1,185 17 0	24 4 0	..	..	314 10 0	6 8 7	170 15 5	3 9 8	335 12 1	6 17 0	5,377 8 10
650 12 9	29 11 6	..	..	87 15 8	3 19 10	555 11 11	25 5 1	358 18 4	16 6 3	2,833 1 4
8,899 17 10	24 15 10	239 9 4	0 13 4	2,240 16 2	6 4 10	1,216 0 5	3 7 9	4,192 5 0	11 13 4	34,260 1 9

LONDON SPECIAL HOSPITALS—

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
<i>Women and Children.</i>			
Samaritan Free	53	49	506
Royal Hospital for Children and Women, Waterloo Bridge	51	47	421
Grosvenor Hospital for Women and Children	14	11	92
	118	107	1,019
<i>Women.</i>			
Hospital for Women, Soho	66	48	583
Chelsea Hospital for Women	63	34	369
New Hospital for Women	26	21	259
	155	103	1,211
<i>Lying-in.</i>			
Queen Charlotte's Lying-in	56	33	941
City of London Lying-in	30	17	407
General Lying-in	24	18	462
British Lying-in	20	8	157
	130	76	1,967

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.				Alcohol.				Domestic Expenses.				Surgery and Dispensary.											
	Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.										
		£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.								
<i>Women and Children.</i>																								
Samaritan Free	1,288	18	0	26	6	1	53	5	4	1	19	816	2	1	16	13	1	68	6	3	14	0	1	
Royal Hosp. for C. & W., } ..	855	0	2	18	5	1	21	18	4	0	9	4	493	15	2	10	10	1	671	5	7	14	5	8
Waterloo Bridge } ..	284	11	5	25	17	5	..	†	..	†	..	139	16	11	12	14	3	176	0	8	16	0	1	
Grosvenor Hospital for W. & C. ..	2,431	9	7	22	14	6	75	3	8	0	14	1	1,449	14	2	13	11	0	1,533	12	6	14	6	8
<i>Women.</i>																								
Hospital for Women, Soho	1,631	19	6	34	0	0	131	11	7	2	16	1	991	5	8	20	13	0	1,000	17	11	20	17	1
Chelsea Hospital for Women	1,037	11	6	31	19	9	71	1	6	2	1	10	441	13	7	12	19	10	534	16	4	15	14	8
New Hospital for Women	609	5	0	29	0	3	20	11	2	0	19	7	287	10	1	13	13	10	244	12	0	11	13	0
	3,328	16	0	32	6	4	226	4	3	2	3	11	1,720	9	4	16	14	1	1,780	9	0	17	5	9
<i>Lying-in.</i>																								
Queen Charlotte's Lying-in	769	11	7	23	6	5	77	2	3	2	6	9	969	4	5	29	7	5	190	13	2	5	15	6
City of London Lying-in	821	17	8	48	6	11	72	15	6	4	5	7	725	10	7	42	13	7	120	12	6	7	1	11
General Lying-in	1,033	4	1	57	8	0	..	†	..	†	..	643	0	6	35	14	6	102	3	3	5	13	6	
British Lying-in	471	11	11	58	19	0	36	0	10	4	10	2	247	0	0	30	17	6	42	10	4	5	7	0
	3,026	5	3	40	14	10	185	18	7	2	8	11	2,584	15	6	34	0	2	456	5	3	6	0	1

† Included in Provisions.

FOR WOMEN AND LYING-IN CASES.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
5,048	..	100 19 0	106 2 0	9 15 6	10 to 1
7,031	..	62 12 9	70 2 4	6 19 10	9 to 1
2,215	..	86 10 7	96 12 0	10 6 11	8 to 1
14,294	..	82 12 9	89 6 4	8 13 6	9 to 1
4,909	..	136 15 6	143 6 10	11 5 3	12 to 1
3,416	..	97 11 1	102 11 6	8 19 9	11 to 1
5,216	..	84 15 9	97 4 2	6 17 6	12 to 1
13,541	..	113 4 7	120 9 7	9 12 7	12 to 1
1,175	..	103 3 11	104 19 6	3 12 4	28 to 1
1,360	..	178 3 2	201 0 10	7 8 10	24 to 1
964	..	166 12 11	169 6 5	6 9 10	26 to 1
605	..	178 2 10	191 12 5	9 1 7	20 to 1
4,104	..	142 17 7	150 16 6	5 10 5	26 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

Expenditure under all Heads.

Salaries and Wages.				Pensions.				Repairs.				Extraordinary Expenses.				Incidental Expenses.				Total.	
Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.			
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		
1,324	7 11	27	0 7	..	..	370	17 4	7 11	4	..	..	659	1 2	13	9 0	5,198	18	1	6
812	8 2	17	5 8	..	..	202	2 10	4	6 0	..	..	236	1 3	5	0 5	3,295	11	6	1
229	4 6	20	16 9	..	..	32	13 10	2	19 5	..	..	200	4 7	18	4 0	1,062	11	11	11
2,360	0 7	22	2 3	..	..	605	14 0	5	13 3	..	..	1,095	7 0	10	4 9	9,557	1	6	1
1,480	0 5	30	16 8	17	1 8	0	7 1	456	18 3	9	10 5	69	17 0	1	9 1	1,097	16	8	8		
926	9 1	27	4 11	..	..	..	..	..	..	..	..	425	19 1	12	10 6	3,487	13	1	1
410	13 2	10	19 8	..	..	136	17 6	6	10 4	..	..	322	17 4	15	7 6	2,041	7	0	0
2,826	2 8	27	8 5	17	1 8	0	3 4	593	15 9	5	15 4	69	17 0	0	13 7	1,846	13	1	1		
947	16 10	28	14 5	..	..	222	2 0	6	14 7	..	..	287	15 10	8	14 5	3,464	6	1	1
931	2 3	54	15 5	109	7 10	6	8 8	321	0 0	18	17 8	315	7 9	18	11 0	3,417	14	1	
628	11 11	14	18 5	25	0 0	1	7 9	200	18 5	11	3 3	414	17 8	23	1 0	3,407	15	10	10		
225	13 8	28	4 2	16	13 4	2	1 8	117	19 8	14	14 11	77	12 2	9	14 0	297	11 8	37	4 0		
2,733	4 8	35	19 1	41	13 4	0	11 0	650	7 11	8	11 2	398	12 2	5	4 11	1,315	12 11	17	6 3		
																			11,462	15	7

‡ Approximate, as in one case Alcohol is included in Provisions.

LONDON SPECIAL HOSPITALS—

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
OPHTHALMIC.			
Royal London Ophthalmic, Moorfields	100	91	2,219
Royal Westminster Ophthalmic Hospital §	50	22	340
Western Ophthalmic Hospital	20	†	55
Royal South London Ophthalmic Hospital	14	9	125
Central London Ophthalmic Hospital	12	6	179
	196	128	2,938
FEVER.			
London Fever Hospital	210	79	661

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.				Alcohol.				Domestic Expenses.				Surgery and Dispensary.			
	Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.		
OPHTHALMIC.																
Royal London Ophthalmic, Moorfields } ..	£ 1,302	s. 17	d. 11	£ 14 6 4	£ 126	s. 15	d. 7	£ 1 7 10	£ 996	s. 17	d. 2	£ 10 19 1	£ 1,432	s. 4	d. 8	£ 15 14 9
Royal Westminster Ophthalmic Hospital § } ..	492	12	3	22 7 10	8	12	0	7 10	181	14	7	8 5 2	194	8	4	8 16 9
Western Ophthalmic Hospital } ..	83	8	9	†	..	..	..	..	56	14	11	..	81	9	2	..
Royal South London Ophthalmic Hospital } ..	268	17	4	29 17 6	..	..	..	..	99	0	6	11 0 1	20	4	10	25 11 7
Central London Ophthalmic Hospital } ..	368	5	6	61 7 7	..	..	..	..	118	2	1	10 13 8	157	3	0	26 3 10
	2 516	1	9†	20 1 3†	..	..	..	..	1,452	9	3	10 18 1	2,095	10	0	15 14 8
FEVER.																
London Fever Hospital ..	2,454	16	0	31 1 5	114	19	9	1 9 1	1,478	19	6	18 14 5	100	3	5	1 5 4

† No information.

‡ Included in Provisions.

§ Average of two years, 1887 and 1888.

†† Includes Alcohol throughout.

OPHTHALMIC AND FEVER.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
25,558	..	53 19 7	68 0 6	2 3 10	85 to 1
7,735	..	63 14 2	81 5 9	4 2 5	15 to 1
2,072	..	‡	‡	10 1 4	‡
6,190	..	91 6 2	125 13 11	6 11 6	14 to 1
8,242	..	122 12 1	191 5 9	4 2 2	30 to 1
49,797	..	61 9 10	80 2 9	2 17 4	22 to 1
..	..	114 12 2	114 12 2	13 13 11	8 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.
‡ No information.

§ Average of two years 1887 and 1888.

Expenditure under all Heads.

Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.
Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1,559 3 11	17 2 8	..	..	462 10 7	4 8 6	..	..	369 13 7	4 1 3	6,190 3 5
574 15 2	26 2 6	..	..	179 3 8	8 2 11	..	..	157 0 0	7 2 9	1,788 6 0
226 16 6	..‡	..	..	17 18 2	..‡	..	..	190 19 9	..‡	657 7 3
369 10 4	41 1 2	..	..	..	..	..	..	163 12 3	18 3 7	1,131 5 3
275 17 9	45 10 8	..	..	44 8 6	7 8 1	..	..	183 17 11	30 13 0	1,147 14 9
3,006 3 8	21 14 3	..	..	644 0 11	4 17 10	..	..	1,005 3 6	6 16 7	10,914 16 8
2,359 3 2	29 17 3	92 10 0	1 3 5	889 19 10	11 5 3	..	..	1,563 15 9	19 15 11	9,054 7 5

Note. In arriving at the average cost per bed occupied, in the totals of the Ophthalmic Section, the figures for the Western Ophthalmic Hospital have been left out of consideration, and the averages struck on those of the four remaining Hospitals.

LONDON SPECIAL HOSPITALS—

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
HEART DISEASES AND EPILEPSY, &c.			
National Hospital for Paralyse and Epileptic	177	128	684
Hospital for Epilepsy and Paralysis	25	21	102
National Hospital for Diseases of the Heart and Paralysis ..	25	16	105
	227	169	891
MISCELLANEOUS.			
Royal Orthopædic Hospital	50	49	139
National Orthopædic Hospital	36	32	106
London Lock Hospital	208	90	879
Cancer Hospital, Brompton	102	80	674
St. Mark's Hospital for Fistula	34	21	279
Royal Ear Hospital	10	4	84
	440	276	2,161

- * Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.		Alcohol.		Domestic Expenses.		Surgery and Dispensary.	
	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.
HEART DISEASES AND EPILEPSY, &c.								
National Hospital for Paralyse and Epileptic ..	£ s. d. 2,092 19 6	£ s. d. 23 7 8	£ s. d. 213 14 4	£ s. d. 1 13 5	£ s. d. 1,410 2 3	£ s. d. 11 0 4	£ s. d. 1,055 14 3	£ s. d. 8 4 11
Hospital for Epilepsy and Paralysis ..	754 11 2	35 18 7	27 14 10	1 6 5	306 15 4	14 12 2	234 2 5	11 2 11
Natl. Hptal. for Diseases of the Heart & Paralysis ..	642 13 4	32 2 8	†	†	226 4 2	11 6 2	244 11 4	12 4 7
	4,390 4 0	25 19 7	241 9 2	1 8 7	1,943 1 9	11 9 11	1,534 8 0	9 1 7
MISCELLANEOUS.								
Royal Orthopædic Hospital ..	504 19 0	10 6 1	55 12 11	1 2 8	321 9 6	6 11 3	227 5 10	4 12 9
National Orthopædic Hptl. ..	352 4 8	11 0 2	2 15 7	0 1 9	210 2 4	6 11 4	55 16 4	1 14 11
London Lock Hospital ..	1,567 12 8	17 8 4	†	†	980 8 2	10 17 10	484 1 11	5 7 7
Cancer Hospital, Brompton ..	1,909 1 2	24 19 9	342 17 10	4 5 9	1,282 10 9	16 0 8	937 0 8	11 14 3
St. Mark's Hospital for Fistula ..	571 1 8	27 3 11	19 15 3	0 18 10	233 8 2	11 2 4	228 15 8	10 17 11
Royal Ear Hospital ..	152 18 1	38 4 6	†	†	66 17 7	16 14 5	34 15 4	8 13 10
	5,147 17 3	18 13 0	421 1 7	1 10 6	3,094 16 6	11 4 3	1,967 15 9	7 2 7

† Included in Provisions

MISCELLANEOUS.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Exp.nditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
7,710	..	71 7 8	74 19 5	13 7 2	5 to 1
506	..	109 15 3	110 19 4	22 11 11	5 to 1
3,447	..	92 5 0	100 17 4	17 11 5	5 to 1
11,663	..	78 12 5	82 10 2	14 18 3	5 to 1
1,139	..	41 13 8	42 16 11	14 13 11	3 to 1
1,042	..	34 0 11	35 13 6	10 5 7	3 to 1
2,524	..	55 19 11	57 7 10	5 14 8	9 to 1
992	..	105 13 10	106 16 4	12 10 10	8 to 1
862	..	100 4 6	102 5 6	7 10 10	13 to 1
2,726	..	139 17 6	173 19 0	6 13 3	21 to 1
9,285	..	69 17 11	71 14 6	8 18 6	8 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the all average number of beds occupied.

Expenditure under all Heads.

Salaries and Wages.				Pensions.				Repairs.				Extraordinary Expenses.				Incidental Expenses.																
Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Total												
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.									
2,205	8	11	17	4	7	26	13	4	0	4	2	304	3	0	2	7	6	73	14	6	0	11	6	1,313	16	10	10	5	3	9,596	6	11
527	13	10	25	2	7	..	..	..	111	5	1	5	5	11	..	..	..	..	..	..	..	..	..	368	3	11	17	10	8	2,330	6	7
453	2	0	22	13	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	450	16	8	22	10	10	2,017	7	6	
3,126	4	9	18	17	1	26	13	4	0	3	2	415	8	1	2	9	2	73	14	6	0	8	9	2,132	17	5	12	12	5	13,944	1	0
662	1	2	13	10	3	..	..	..	176	4	10	3	11	11	..	..	..	..	..	..	..	..	..	151	17	7	3	2	0	2,099	10	10
300	10	9	19	7	10	..	..	..	23	0	2	0	14	5	..	..	..	..	..	..	..	..	..	197	1	3	6	3	2	1,141	11	1
1,076	11	3	11	19	2	..	..	..	441	1	11	4	18	0	..	..	..	..	..	..	..	..	..	616	0	8	6	16	11	5,165	16	7
2,151	15	8	26	17	11	38	13	2	0	9	8	511	14	5	6	7	11	40	14	6	0	10	2	1,241	1	5	15	10	3	8,545	9	7
600	0	9	28	11	6	..	..	..	238	15	1	11	7	4	..	..	..	..	..	..	..	..	..	255	19	9	12	3	9	2,147	16	4
168	18	8	42	4	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	272	6	6	68	1	7	695	16	2	
4,059	18	3	17	19	5	38	13	2	0	2	10	1,390	16	5	5	0	9	40	14	6	0	2	11	2,734	7	2	9	18	2	19,796	0	7

‡ Approximate, as in some cases Alcohol is included in Provisions.

LONDON HOSPITALS.
(General Summary of all the preceding Tables.)

Expenditure, Accommodation, and Work Done:—This table brings all the tables together, and shows the averages of the number of beds, the number of patients relieved, the expenditure under the various heads, with the total expenditure, of the London Voluntary Hospitals for the three years 1887, 1888, and 1889.

Class.	No. of Beds.	In-patients.	Out-patients.	Lying-in Cases.	Proportion of In-patients to beds occupied.	Provisions.	Alcohol.	Domestic Expenses, primary.	Sur-gery & Dis-penses.	Salaries and Wages.	Pen-sions.	Re-pairs.	Extra-ordinary Ex-penses.	In-cidental Ex-penses.	Total
GENERAL HOSPITALS:—															
With Medical Schools	3,266	35,392	346,669	10,108	13 to 1	61,056	5,643	38,401	36,987	63,745	2,479	13,380	18,430	17,726	251,847
Without " "	829	7,999	115,761	881	13 to 1	13,083	1,466	6,125	6,739	11,914	40	1,883	371	5,561	28,012
Total of General Hospitals	4,095	43,391	462,430	10,989	13 to 1	75,039	7,049	44,526	37,716	75,659	2,519	15,263	18,801	23,287	279,859
SPECIAL HOSPITALS:—															
Consumption	632	3,414	43,441	..	7 to 1	13,211	899	6,573	5,274	10,383	460	1,932	2,993	5,268	46,993
Children	484	4,377	78,725	..	12 to 1	7,393	440	5,229	4,430	8,920	239	2,241	1,216	4,192	34,260
Women and Children	118	1,019	14,294	..	9 to 1	2,431	75	1,450	1,534	2,365	..	666	..	1,695	9,537
Women	155	1,281	13,541	..	26 to 1	3,329	27	1,720	1,786	2,856	17	594	70	1,647	12,499
Men	135	1,077	14,744	..	26 to 1	3,399	186	1,485	1,750	2,496	42	640	399	1,565	10,403
Ophthalmic	106	2,938	49,797	..	22 to 1	2,652	..	1,432	2,096	3,036	..	890	..	1,564	9,054
Fever	210	601	..	..	8 to 1	2,455	115	1,479	1,000	2,026	92	890	..	1,564	9,054
Heart Diseases and Epilepsy, &c.	227	891	11,663	..	5 to 1	4,300	242	1,943	1,534	3,156	27	415	74	2,133	13,044
Miscellaneous	440	2,161	9,285	..	8 to 1	5,148	421	3,094	1,968	4,960	38	1,391	41	2,734	19,795
Total of Special Hospitals	2,592	18,639	224,850	..	11 to 1	44,105	2,584	25,526	19,172	40,710	915	9,363	4,793	21,214	167,391
Grand Total	6,687	62,030	687,280	10,989	12 to 1	119,144*	9,633*	70,052	56,888	116,378	3,434	24,626	23,594	44,501	468,290

* Approximate, as in some cases Alcohol has been included in Provisions

Patients, Beds, and Comparative Cost.

Class.	No. of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.	No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
GENERAL HOSPITALS:—									
With Medical Schools	3,266	2,688	35,392	346,669	10,108	£ s. d.	£ s. d.	£ s. d.	13 to 1
Without " "	829	596	7,999	115,761	881	6 2 1	13 3 10	6 2 1	13 to 1
Total of General Hospitals	4,095	3,284	43,391	462,430	10,989	78 10 10	91 0 2	5 18 11	13 to 1

SPECIAL HOSPITALS:—									
Consumption ..	632	455	3,414	43,441	..	91	18	103	5
Children ..	484	359	4,377	78,725	..	81	1	7	8
Women and Children ..	118	107	1,019	14,294	..	82	12	95	8
Women ..	155	103	1,211	13,541	..	113	4	120	9
Lying-in ..	130	76	1,967	41,404	..	143	17	150	16
Ophthalmic ..	196	128	2,938	49,797	..	61	9	10	8
Fever ..	210	79	691	11,663	..	114	12	114	12
Heart Diseases and Epilepsy, &c. ..	227	169	891	11,663	..	78	12	82	10
Miscellaneous ..	440	276	2,101	9,285	..	69	17	11	6
Total of Special Hospitals ..	2,592	1,752	18,639	224,150	..	86	19	4	3
Grand Total ..	6,687	5,036	62,030	687,280	10,969	81	9	5	7

* Arrived at by dividing the total expenditure, after deducting one shilling for each out-patient, and all extraordinary expenses, by the daily average number of beds occupied.

† Arrived at by dividing the total expenditure in the same way, without any deduction.

Detailed Analysis of Expenditure under all Heads.

Class.	Provisions.		Alcohol.		Domestic Expenses.		Surgery and Dispensary.		Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.					
	Amount	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.						
GENERAL HOSPITALS:																								
With Med. Schools ..	61,056	22	14	3,564	2	0	38,401	14	5	9,309	87	11	7	61,745	23	14	4,279	0	18	5				
Without ..	13,983	9	3	1,406	2	2	6,125	10	5	6,720	11	9	11,914	19	10	40	0	1	5					
Total of General ..	75,039	22	17	7,049	2	2	44,526	13	23	17,616	11	8	75,659	23	0	10	2,519	0	15					
SPECIAL HOSPITALS:																								
Consumption ..	13,221	29	0	899	1	19	6	6,573	14	8	11	5,274	11	10	3,832	16	5	460	1	0				
Children ..	7,391	20	11	420	1	3	4	5,229	14	11	4	4,430	12	6	9,900	24	15	239	0	13				
Women and Children ..	2,431	22	14	75	0	14	1	1,450	13	11	0	1,534	14	6	2,902	22	3	2,241	6	4				
Women ..	3,338	25	14	186	2	11	1,789	10	14	5	9	2,825	27	8	594	15	4	606	5	13				
Lying-in ..	3,016	24	10	186	2	8	1	2,583	34	0	456	6	1	2,733	35	19	3	42	0	11				
Ophthalmic ..	2,652	20	1	115	1	9	1	1,452	10	18	1	2,095	15	8	399	5	4	594	15	4				
Fever ..	2,455	31	5	115	1	9	1	1,479	18	14	5	100	1	5	890	11	5	92	1	3				
Heart Diseases and Epilepsy, &c. ..	4,390	25	19	7	242	1	8	7	1,943	11	9	11	1,534	9	1	3,186	18	17	27	0	3			
Miscellaneous ..	51,181	13	0	421	1	10	3	3,095	11	4	3	1,968	17	19	5	38	0	2	10	0				
Total of Special ..	44,105	25	3	2,584	1	9	0	25,526	14	11	5	19,172	10	18	40,719	23	4	915	0	10				
Grand Total ..	119,144	23	13	2,963 ^a	1	18	3 ^a 70,052	13	18	2 ^a 56,888	11	5	11,116,378	23	2	3,434	0	13	8	44,501	8	16	9,468	25

^a Approximate, as in some cases Alcohol has been included in Provisions.

PROVINCIAL, SCOTCH, AND IRISH

Patients, Beds, and Comparative Cost.

Name.	No. of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
<i>Provincial.</i>			
General Infirmary, Leeds	320	283	4,703
Royal Infirmary and Dispensary, Manchester	298	258	4,322
General Hospital, Birmingham	280	229	3,628
Royal Infirmary, Newcastle-upon-Tyne	270	240	3,105
Bristol Royal Infirmary	264	211	3,196
Liverpool Royal Infirmary	211	121	1,645
Royal Southern Hospital, Liverpool	200	171	2,040
Sheffield General Infirmary	200	160	1,800
Addenbrooke's Hospital	141	115	1,052
Radcliffe Infirmary, Oxford †	138	99	1,310
Queen's Hospital, Birmingham	120	100	1,852
	2,442	1,996	28,653
<i>Scotch and Irish.</i>			
Royal Infirmary, Edinburgh	690	634	8,153
Glasgow Royal Infirmary	555	515	5,080
Western Infirmary, Glasgow	400	379	3,638
Dr. Steeven's Hospital, Dublin	220	76	1,169
Belfast Royal Hospital	196	134	2,151
Adelaide Hospital, Dublin	135	90	955
Meath General Hospital, Dublin	116	87	1,204
	2,312	1,906	22,350

* Arrived at by dividing the daily average number of beds occupied into the total expenditure, after deducting one shilling for each out-patient, and all extraordinary expenses.

Detailed Analysis of Expenditure under all Heads.

Name.	Provisions.		Alcohol.		Domestic Expenses.		Surgery and Dispensary.	
	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.
<i>Provincial.</i>								
General Infirmary, Leeds	£ 5,277 17 12	s. 12 11	£ 181 10 0	s. 0 12 10	£ 2,364 12 10	s. 8 7 1	£ 2,662 9 5	s. 9 8 2
Royal Infirmary and Dispensary, Manchester	4,932 15 5	19 2 5	277 4 7	1 1 6	1,741 18 0	6 5 0	2,331 15 8	9 0 9
General Hosp. Birmingham	4,578 16 7	19 19 11	373 10 7	1 12 7	2,566 12 2	11 4 2	2,240 12 5	9 15 8
Royal Infirmary, Newcastle-upon-Tyne	4,417 13 3	18 8 2	176 10 8	0 14 8	1,715 12 5	7 3 0	1,805 1 7	7 10 5
Bristol Royal Infirmary	3,727 2 11	17 13 3	236 16 3	1 2 5	2,440 17 8	11 11 4	1,602 1 9	8 0 5
Liverpool Royal Infirmary	2,482 1 10	20 10 3	292 16 3	2 8 5	1,046 5 3	8 12 11	839 5 6	6 18 9
Royal Southern Hospital, Liverpool	2,714 18 4	15 17 6	192 18 4	1 2 7	1,622 6 5	9 9 9	756 9 8	4 8 6
Sheffield General Infirmary	3,198 1 3	19 19 9	349 13 5	2 3 8	1,426 0 9	8 18 3	1,342 14 6	8 7 10
Addenbrooke's Hospital	2,270 17 8	19 14 11	193 11 8	0 18 0	1,014 19 8	8 16 6	752 17 11	6 10 11
Radcliffe Infirmary, Oxford †	2,313 9 7	23 7 4	208 16 0	2 2 2	1,166 6 2	11 10 8	935 5 6	9 8 11
Queen's Hospital Birmingham	1,060 11 8	17 19 9	226 5 1	2 1 6	1,001 0 3	0 3 8	1,114 4 7	10 4 5
	37,873 12 1	18 19 6	2,019 14 0	1 6 3	18,126 11 8	9 1 7	10,472 18 6	8 5 1
<i>Scotch and Irish.</i>								
Royal Infirmary, Edinburgh	12,663 7 3	19 19 6	793 6 3	1 5 0	5,745 0 3	9 1 3	3,949 17 10	6 4 7
Glasgow Royal Infirmary	20,092 16 0	15 3 3	20,092 16 0	1 5 0	20,092 16 0	40 15 3	.. .. .	.. .. .
Western Infirmary, Glasgow	7,333 17 3	19 16 5	279 9 1	0 15 1	2,322 10 10	6 5 7	2,133 17 4	5 15 4
Dr. Steeven's Hospital, Dublin	1,790 17 7	23 11 3	154 2 10	2 0 7	851 19 6	11 4 3	435 5 2	5 14 6
Belfast Royal Hospital	2,498 13 0	18 12 11	102 5 8	0 15 3	902 0 7	7 8 1	946 18 2	7 1 4
Adelaide Hospital, Dublin	1,237 8 4	24 17 3	92 19 8	1 0 8	1,187 19 10	13 4 0	505 13 11	5 12 4
Meath Gen. Hospital, Dublin	1 638 13 5	18 16 8	108 4 7	1 4 11	718 18 4	8 5 3	450 8 8	5 3 7
	28,162 16 10	20 4 11	1,530 8 1	1 2 0	11,818 18 4	8 9 11	8,422 1 1	6 1 1
					20,992 16 0	65 40 15 33		

* Included in Domestic Expenses.

† 1889 only.

‡ Exclusive of Glasgow Royal Infirmary.

HOSPITALS, WITH MEDICAL SCHOOLS.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
29,316	568	52 3 2	57 14 6	3 2 0	16 to 1
31,615	..	57 13 1	64 7 11	3 8 10	17 to 1
43,852	..	54 7 7	65 11 8	3 8 8	16 to 1
7,337	..	48 6 8	49 17 3	3 14 9	11 to 1
29,240	104	50 8 6	57 8 8	3 6 7	15 to 1
7,011	..	50 2 5	60 0 9	3 13 9	11 to 1
7,852	..	42 15 10	45 1 9	3 11 9	12 to 1
8,219	..	52 15 1	55 8 10	4 13 9	11 to 1
4,023	..	40 0 10	51 5 0	5 7 3	9 to 1
5,870	..	68 18 2	71 17 5	5 4 1	13 to 1
28,646	327	56 0 4	69 2 11	3 5 11	17 to 1
203,881	999	52 9 3	59 7 11	3 13 1	14 to 1
30,000	..	52 14 4	55 1 8	4 2 0	13 to 1
38,064	..	45 0 1	45 5 6	4 11 3	10 to 1
13,378	23	47 9 2	49 5 4	4 16 6	10 to 1
11,339	..	59 5 5	66 14 8	3 17 1	15 to 1
18,319	..	43 5 10	50 2 6	2 13 11	16 to 1
20,000	..	60 12 7	71 14 10	5 14 3	11 to 1
8,910	..	45 17 1	62 9 5	3 6 3	14 to 1
134,010	23	49 5 5	53 7 1	4 4 0	12 to 1

† Arrived at by dividing the daily average number of beds occupied into the total expenditure, without such deduction.
 † 1889 only.

(Average of Years 1887, 1888, and 1889.)

Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Totals.
Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
4,062 13 0	14 7 1	6 13 4	0 0 6	600 4 8	2 2 5	109 6 6	0 7 9	1,071 9 1	3 15 9	16,336 0 5
5,311 11 7	20 11 9	..	..	761 7 10	2 19 0	158 15 5	0 12 4	1,099 3 7	4 5 3	16,614 12 1
3,553 17 9	15 10 5	248 5 0	1 1 8	310 1 9	1 7 1	373 16 8	1 12 8	773 9 1	3 7 7	15,019 2 0
2,181 16 5	9 1 10	26 14 6	0 2 3	849 0 10	3 10 9	..	..	794 13 9	3 6 3	11,967 3
3,135 9 8	15 1 11	..	..	363 12 4	1 14 6	2,126 12 7	10 1 7	456 2 10	2 3 3	14,228 16 0
1,266 10 2	10 9 4	..	..	168 7 8	1 7 10	849 7 6	7 0 5	320 0 8	2 12 11	7,264 14 10
1,776 4 4	10 7 9	..	..	398 1 5	2 6 7	..	..	248 16 9	1 9 1	7,709 15
1,834 16 10	11 9 4	..	..	105 16 7	1 4 6	18 8 5	0 2 4	504 16 4	3 3 1	8,870 8 1
1,188 18 9	10 6 9	53 6 8	0 9 3	299 17 7	2 12 2	7 13 8	0 1 4	201 9 2	1 15 1	5,893 12 0
1,620 2 4	16 9 1	..	..	444 12 10	4 9 9	..	..	397 16 10	4 0 4	7,115 0 8
2,537 17 2	23 5 8	..	..	272 7 3	2 10 0	..	..	424 7 2	3 17 10	7,526 15 4
28,528 18 5	14 5 10	334 19 6	0 3 4	4,663 10 9	2 6 9	3,644 0 9	1 16 6	6,292 5 3	3 3 1	118,556 9 11
8,840 17 10	13 18 11	317 4 5	0 10 0	852 4 11	1 6 11	..	..	1,760 6 8	2 15 6	34,922 5 5
2,064 14 3	4 0 2	..	..	1,109 1 8	2 3 1	80 9 7	0 3 2	614 2 1	1 3 10	24,861 4 1
4,944 1 11	13 7 3	..	..	505 9 3	1 7 4	..	..	709 3 1	1 18 4	18,228 17 9
1,006 15 1	13 4 11	..	..	344 14 0	4 10 8	..	..	487 18 3	6 8 5	5,071 12 5
1,630 16 10	12 3 5	37 17 0	0 5 8	167 7 11	1 5 0	..	..	340 10 3	2 10 10	6,716 18 5
1,555 9 6	17 5 8	..	..	436 9 2	4 17 0	..	..	440 15 3	4 17 11	6,456 15 8
8,333 10 9	11 7 7	70 0 0	0 16 1	332 13 11	3 16 6	1,000 0 0	11 0 11	282 10 6	3 4 11	5,435 0 3
20,876 6 3	10 19 1	425 1 5	0 4 5	3,748 0 10	1 19 4	1,080 9 7	0 11 4	4,635 15 1	2 8 8	101,692 14 0

§ Glasgow Royal Infirmary, inclusive of Provisions, Alcohol, and Surgery and Dispensary.

PROVINCIAL GENERAL HOSPITALS, WITHOUT MEDICAL

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In- patients.
Wolverhampton and Staffordshire General Hospital	226	124	1,970
Leicester Infirmary	221	175	2,572
Devon and Exeter Hospital	218	164	1,251
North Staffordshire Infirmary	213	159	1,638
Hull Royal Infirmary	211	135	1,828
Bradford Infirmary and Dispensary	210	166	1,631
Norfolk and Norwich Hospital	200	135	1,248
General Hospital, Nottingham	180	134	1,364
Derbyshire General Infirmary	175	124	1,236
Sussex County Hospital	173	133	1,178
General Infirmary, Gloucester	156	91	1,207
Liverpool Northern Hospital	155	126	1,692
Bristol General Hospital	150	138	2,231
Royal Berkshire Hospital	143	120	1,087
Sunderland and Bishopwearmouth Infirmary	140	125	1,629
Salop Infirmary	140	85	1,007
Swansea Hospital	130	72	795
Salford Royal Hospital **	124	87	1,460
South Devon and East Cornwall Hospital	119	95	1,065
Warneford, Leamington, and South Warwickshire **	119	74	935
Worcester General Infirmary	114	88	1,208
Royal Hants County Hospital	110	67	562
York County Hospital	110	104	1,208
East Suffolk and Ipswich Hospital **	110	79	678
Sheffield Public Hospital and Dispensary	105	84	940
County Hospital, Lincoln	105	84	680
Stanley Hospital, Liverpool ††	104	60	735
Preston and County of Lancaster Royal Infirmary	103	93	1,171
General Kent and Canterbury Hospital	102	88	800
Bolton Infirmary and Dispensary	101	80	799
Royal Portsmouth, Portsea, and Gosport Hospital	100	91	837
North Devon Infirmary	100	50	609
Salisbury Infirmary	100	84	803
Essex and Colchester General Hospital §	100	63	588
Taunton and Somerset Hospital **	100	90	892
Staffordshire General Infirmary **	100	47	671
Halifax Infirmary	100	81	993
	5,167	3,795	43,198

* Arrived at by dividing the daily average number of beds occupied into the total expenditure, after deducting one shilling for each out-patient, and all extraordinary expenses.

SCHOOLS, BUT HAVING 100 BEDS OR OVER.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
11,936	..	48 7 8	57 4 11	3 0 11	16 to 1
11,703	..	49 7 5	59 9 7	3 7 2	15 to 1
2,260	..	50 6 5	51 11 0	6 11 11	8 to 1
8,352	..	51 15 7	56 4 4	5 0 6	10 to 1
10,857	..	52 17 2	63 17 9	3 18 1	13 to 1
10,467	..	47 12 9	50 15 10	4 17 0	10 to 1
3,917	..	54 2 3	56 2 2	5 17 1	9 to 1
8,036	..	54 7 2	59 1 2	5 6 10	10 to 1
5,212	..	51 5 2	54 14 6	5 2 10	10 to 1
5,525	..	73 3 0	85 6 11	8 5 2	9 to 1
5,546	..	56 14 11	59 15 10	4 5 7	13 to 1
5,067	..	51 9 3	53 9 6	3 16 8	13 to 1
18,396	..	50 12 0	58 0 8	3 2 7	16 to 1
1,561	..	53 16 0	57 4 7	5 18 9	9 to 1
2,344	..	38 15 7	42 2 4	2 19 6	13 to 1
5,850	..	53 12 0	57 0 9	4 10 6	12 to 1
2,492	..	38 6 9	40 1 4	3 9 5	11 to 1
16,972	..	57 10 5	67 5 6	3 8 6	17 to 1
3,121	..	51 5 6	52 18 4	4 11 6	11 to 1
5,500	..	51 0 1	54 14 5	4 0 8	12 to 1
5,193	..	51 4 8	65 7 7	3 14 8	14 to 1
753	..	60 0 7	66 0 3	7 3 1	8 to 1
7,233	..	48 9 0	52 12 11	4 3 5	12 to 1
3,942	..	49 1 11	51 11 10	5 14 4	8 to 1
18,645	..	48 1 5	59 3 4	4 5 11	11 to 1
1,621	..	54 5 10	55 5 2	6 14 2	8 to 1
12,588	..	36 6 9	46 16 7	2 19 4	12 to 1
5,344	..	58 2 5	60 19 10	4 16 10	12 to 1
1,437	..	49 8 2	50 4 6	5 8 8	9 to 1
4,212	..	60 9 9	63 2 5	6 1 2	10 to 1
5,354	..	54 15 2	60 15 7	5 19 1	9 to 1
1,844	..	40 11 5	44 14 11	3 6 7	12 to 1
2,534	..	54 16 2	56 7 4	5 14 8	10 to 1
1,856	..	46 2 4	47 11 9	4 18 10	9 to 1
4,179	..	47 7 0	49 13 5	4 15 6	9 to 1
1,655	..	58 10 2	60 5 5	4 1 11	14 to 1
5,824	..	56 12 3	60 9 0	4 12 4	12 to 1
230,328	..	51 16 6	56 16 0	4 11 1	12 to 1

† Arrived at by dividing the daily average number of beds occupied into the total expenditure, without any deduction.

§ 1888 and 1889 only.

** Figures for 1889 only.

†† 1887 and 1888 only.

PROVINCIAL GENERAL HOSPITALS, WITHOUT

Detailed Analysis of Expenditure under all Heads.

Name.	Provisions.				Alcohol.				Domestic Expenses.				Surgery and Dispensary.												
	Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.			Amount.	Average Cost per Bed occupied.											
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.							
Wolverhampton and Staffordshire Gen. Hospital	2,336	7	10	18	16	10	..*	..*	886	17	1	7	3	1	1,209	10	3	9	15	1					
Leicester Infirmary	3,267	16	6	18	13	6	275	0	4	1	11	5	1,400	10	10	8	0	1,155	7	9	6	12	1		
Devon and Exeter Hospital	3,056	0	0	18	12	8	338	19	2	2	1	4	960	16	2	5	17	2	1,084	9	3	6	12	3	
North Staffordshire Infirmary	3,222	19	4	20	5	5	205	19	8	1	5	11	1,127	4	2	7	1	0	1,202	12	3	7	11	0	
Hull Royal Infirmary	2,883	3	7	21	7	2	145	10	4	0	1	7	1,002	0	8	7	8	5	1,100	0	1	8	3	0	
Bradford Infirmary and Disp.	2,636	8	5	15	17	8	154	10	4	0	18	7	851	11	3	5	2	7	1,700	13	6	10	4	11	
Norfolk and Norwich Hospital	2,591	13	9	19	3	11	287	12	5	2	2	7	1,535	7	11	11	7	6	552	0	1	4	1	9	
General Hospital, Nottingham	3,133	5	7	23	7	8	182	3	10	1	7	2	1,335	14	1	9	19	4	786	16	5	5	17	5	
Derbyshire General Infirmary	2,369	5	7	19	2	2	156	3	5	1	5	2	1,038	16	8	8	7	7	635	14	11	5	2	6	
Sussex County Hospital	3,807	7	5	28	12	6	354	6	3	2	13	3	1,339	18	7	10	1	6	1,173	8	7	8	16	5	
General Infirmary, Gloucester	1,764	9	8	19	7	9	70	2	8	0	15	5	999	1	10	10	7	6	694	8	0	7	12	9	
Liverpool Northern Hospital	2,406	7	7	19	2	0	220	19	7	1	15	1	1,430	2	10	11	8	5	822	17	4	6	10	7	
Bristol General Hospital	2,580	1	3	18	13	11	231	2	6	1	13	6	1,200	3	2	8	13	11	1,205	7	3	8	14	6	
Royal Berkshire Hospital	2,013	14	6	16	15	7	105	1	10	0	17	6	1,084	18	0	9	0	10	752	12	9	6	5	5	
Sunderland and Bishopwearmouth Infirmary	2,196	9	5	17	11	5	27	4	8	0	4	4	672	6	7	5	7	7	341	11	2	2	14	8	
Salop Infirmary	1,719	14	0	20	4	7	151	1	5	15	7	803	10	0	9	9	1	756	12	3	8	18	0		
Swansea Hospital	897	3	1	12	9	2	26	3	9	0	7	3	453	16	5	6	0	1	346	3	1	4	16	2	
Salford Royal Hospital†	1,791	0	1	20	11	8	46	8	6	0	10	8	838	5	0	9	12	8	879	2	10	10	2	1	
South Devon and East Cornwall Hospital	1,879	19	3	19	15	9	61	16	9	0	13	0	878	3	7	9	4	10	621	17	8	6	10	11	
Warneford, Leamington, & South Warwickshire†	1,417	15	2	19	3	2	63	4	4	0	17	1	525	8	7	7	2	0	429	19	9	5	16	2	
Worcester General Infirmary	1,497	0	4	17	0	3	134	16	9	1	10	8	707	0	1	8	0	8	878	7	9	9	19	8	
Royal Hants County Hospital	1,263	16	7	18	17	3	75	0	10	1	2	5	718	11	7	10	14	6	339	13	4	5	1	5	
York County Hospital	2,107	2	0	20	5	3	113	18	0	1	11	1	754	3	8	7	5	0	681	8	0	6	11	1	
East Suffolk and Ipswich Hospital†	1,317	8	2	16	13	7	107	1	3	1	7	1	513	4	9	6	9	11	599	15	4	7	11	10	
Sheffield Public Hospital and Dispensary	1,503	17	4	17	18	1	76	1	4	0	18	1	544	10	4	6	9	8	1,050	8	3	12	10	1	
County Hospital, Lincoln	1,568	18	8	18	13	7	134	4	8	1	12	0	782	1	10	9	6	3	549	9	6	6	10	10	
Stanley Hospital, Liverpool††	989	8	0	16	9	10	53	1	6	0	17	8	306	15	2	6	12	3	301	10	3	6	0	6	
Preston and County of Lancaster Royal Inf.	1,911	13	11	20	11	1	131	15	0	1	8	4	854	13	1	9	3	9	861	1	11	9	5	2	
General Kent and Canterbury Hospital	1,792	10	10	20	7	5	172	0	6	1	19	1	687	0	0	7	16	2	512	7	7	5	16	5	
Bolton Infirmary and Disp.	1,842	4	10	23	0	7	..*	..*	756	4	7	9	9	1	697	14	4	8	14	5					
Royal Portsmouth, Portsea, and Gosport Hosp.	1,893	14	5	20	16	2	136	6	10	1	10	0	1,042	4	1	11	9	1	590	12	7	6	9	10	
North Devon Infirmary	851	5	7	17	0	6	62	10	5	1	5	0	209	6	4	5	19	0	217	15	8	4	7	2	
Salisbury Infirmary	1,564	19	1	18	12	7	106	16	3	1	5	5	569	1	5	6	15	6	541	2	4	6	8	10	
Essex and Colchester Gen. Hospital	1,003	16	8	15	18	8	84	5	8	1	6	9	362	18	1	5	15	2	308	1	5	4	17	10	
Taunton & Somerset Hospital†	1,674	3	2	18	12	0	81	9	9	0	18	1	742	16	2	8	5	0	553	12	1	6	3	0	
Staffordshire Gen. Infirmary	1,067	11	9	22	14	3	70	7	6	1	9	11	348	18	0	7	8	5	338	2	4	7	3	11	
Halifax Infirmary	1,408	12	2	17	7	10	73	8	8	0	18	2	782	14	3	9	13	3	953	2	8	11	15	4	
	73,229	5	6	19	5	11	4,716	16	8	1	4	10	32,235	16	10	8	4	7	27,485	10	6	7	4	10	

* Included in Provisions.

† Figures are for 1880 only.

†† 1887 and 1888 only.

MEDICAL SCHOOLS, BUT HAVING 100 BEDS OR OVER.

(Average of Years 1887, 1888, and 1889.)

Salaries and Wages.				Pensions.				Repairs.				Extraordinary Expenses.				Incidental Expenses.				Total.
Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		Amount.		Average Cost per Bed occupied.		
£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
1,568	1 3 12 12 11	..	..	278	1 2 2 4 10	502	6 6 4 1 0	317	4 10 2 11 2	7,098	8 11							
2,237	6 3 12 15 8	..	..	504	13 6 2 17 7	1,184	9 1 6 15 4	324	18 8 2 4 0	10,400	2 11							
2,600	18 0 12 11 4	80 11	1 0 9 10	430	0 5 2 13 2	88	17 6 0 10 10	347	15 10 2 2 5	8,454	7 11									
1,386	8 10 13 14 10	..	..	575	1 11 3 12 4	287	10 0 1 16 2	430	10 7 2 14 2	8,638	4 4							
1,810	11 7 10 18 2	..	..	377	7 4 2 15 11	946	7 3 7 0 2	314	17 11 2 0 8	8,624	16 0							
1,099	3 11 12 11 9	21 15	0 0 3 3	1,023	15 3 6 3 4	..	..	253	19 0 1 10 7	8,431	10 1							
1,550	10 0 11 11 5	8 10	8 0 1 3	305	1 5 2 5 2	73	19 3 0 10 11	503	2 8 3 15 3	7,574	17 2									
1,449	4 5 11 13 3	..	..	399	11 10 2 19 8	227	10 4 1 14 0	288	19 8 3 2 2	7,913	11 5							
2,054	11 0 15 8 11	122 8	5 0 18 5	615	6 11 4 19 3	168	10 9 1 7 3	355	6 1 2 17 4	6,795	14 9									
1,325	0 6 14 11 3	17 10	0 0 3 10	724	5 1 5 8 11	1,346	5 5 10 2 5	428	11 8 3 4 5	11,351	2 5									
1,450	2 6 11 10 2	..	..	288	11 9 3 3 5	..	..	281	17 4 3 1 11	5,441	1 9					
1,018	2 7 13 18 0	..	..	260	0 11 2 1 3	..	..	138	3 8 1 1 11	6,737	14 5					
1,822	14 6 15 3 9	2 3	4 0 0 4	350	1 8 2 10 9	105	17 0 0 15 4	417	10 7 3 0 7	8,008	12 0									
929	2 3 7 8 8	..	..	380	18 3 3 3 6	333	15 6 2 15 7	371	8 9 3 1 11	6,867	7 5							
1,688	5 9 12 16 1	40 0	0 0 9 5	276	18 8 2 4 4	300	0 0 2 8 0	520	18 3 4 3 4	5,264	11 0									
737	15 11 10 4 11	..	..	121	2 4 1 8 6	..	..	168	1 11 1 19 7	4,848	7 8					
1,769	5 8 20 6 8	..	..	63	18 8 0 17 9	..	..	350	18 1 5 0 0	2,884	19 0					
997	4 10 9 11	..	..	264	16 4 3 0 10	..	..	204	5 4 3 0 9	5,553	3 9					
980	11 1 13 5 0	..	..	206	18 2 2 3 7	..	..	381	2 10 1 4 0	3 5,027	2 5					
1,042	14 7 17 17 0	..	..	467	12 3 6 6 4	..	..	164	18 5 2 4 7	4,049	9 7					
1,106	1 1 17 8 1	11 0	0 0 3 3	200	5 11 2 5 6	685	5 8 11 3 11	307	13 11 3 9 11	5,753	5 0									
1,185	19 11 11 8 1	..	..	271	9 0 4 1 0	363	8 11 5 8 6	211	17 7 3 3 10	4,422	18 11							
896	16 11 11 7 0	..	..	318	12 8 3 1 3	74	12 3 0 14 4	230	0 3 2 6 0	5,475	2 9							
1,051	18 6 12 10 5	..	..	376	10 11 4 15 4	..	..	264	19 0 3 7 1	4,075	15 7					
611	18 9 10 17 7	37 10	0 0 8 11	309	10 5 3 13 8	..	..	433	15 7 5 3 4	4,970	1 9							
680	10 5 11 8 10	..	..	383	15 8 4 11 4	..	..	271	11 4 3 4 8	4,641	10 5					
1,389	7 11 14 18 9	..	..	..	..	..	..	322	10 1 5 7 6	2,806	15 8			
845	18 3 9 12 3	23 6	8 0 5 4	240	18 1 2 11 10	..	..	282	15 4 3 0 10	5,672	5 3							
1,164	13 11 17 1 2	..	..	188	9 10 2 2 10	..	..	198	4 9 2 5 0	4,419	18 5					
1,063	14 5 11 13 9	..	..	154	11 2 1 18 8	..	..	234	3 9 2 18 6	5,040	12 7					
506	16 6 10 2 7	3 6	8 0 1 4	254	0 3 2 15 10	230	1 8 2 10 7	320	1 7 3 10 4	5,530	15 10									
1,074	5 6 12 15 9	18 6	8 0 4 4	113	15 4 2 5 6	116	9 0 2 6 7	66	4 1 6 6	2,237	4 10									
860	12 10 13 13 3	..	..	455	9 4 5 18 0	4	5 9 0 1 0	300	7 3 4 5 10	4,714	13 7							
940	4 8 10 8 11	..	..	172	11 6 2 14 9	..	..	205	16 11 3 5 4	2,998	3 1					
714	7 1 15 3 11	..	..	205	6 1 2 5 10	..	..	271	18 11 3 0 5	4,470	10 10					
1,149	1 6 14 3 9	..	..	108	12 8 2 5 4	..	..	180	16 4 3 19 0	2,532	15 8					
..	..	..	..	188	5 11 2 6 6	16	15 2 0 4 10	321	7 5 3 19 4	4,896	7 9						
48,040	4 1 12 13 2	386	9 3 0 2 0	11,900	8 7 3 2 9	7,360	2 0 1 18 10	11,200	9 2 2 19 0	215,555	2 7									

‡ Approximate, as in two cases Alcohol has been included in Provisions.

§ 1888 and 1889 only.

SCOTCH AND IRISH GENERAL HOSPITALS

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
SCOTCH.			
Royal Infirmary, Dundee	250	150	2,018
Greenock Hospital and Infirmary	220	88	1,014
Aberdeen Royal Infirmary	213	164	2,085
Kilmarnock Infirmary	140	43	570
Northern Infirmary, Inverness†	130	38	450
Paisley Infirmary	127	96	1,045
County and City of Perth Infirmary	113	42	568
	1,197	621	7,750
IRISH.			
South Charitable Infirmary and County Hospital, Cork	104	64	956

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name.	Provisions.					Alcohol.					Domestic Expenses.					Surgery and Dispensary.				
	Amount.		Average Cost per Bed occupied.			Amount.		Average Cost per Bed occupied.			Amount.		Average Cost per Bed occupied.			Amount.		Average Cost per Bed occupied.		
SCOTCH.																				
Royal Infirmary, Dundee ..	£ 2,257	7 6	15	1	0	£ 106	4 8	0	14	2	£ 1,079	14 11	7	4	0	£ 551	5 9	3	13	0
Greenock Hospital and Infirmary	2,038	13 4	23	3	4	83	9 3	0	19	0	592	10 10	6	14	8	370	5 3	4	4	2
Aberdeen Royal Infirmary ..	2,197	13 2	13	8	0	185	17 10	1	2	8	1,000	19 5	6	2	1	751	4 8	4	11	1
Kilmarnock Infirmary	687	14 0	15	19	10	42	4 0	0	19	7	249	19 10	5	16	3	156	16 6	3	12	11
Northern Infirmary, Inverness†	767	6 0	20	3	10	76	14 7	2	0	5	357	15 6	9	8	4	277	1 7	7	5	10
Paisley Infirmary	1,310	15 9	13	13	1	124	15 6	1	6	0	361	1 11	3	15	3	327	9 7	3	8	2
County and City of Perth Infirmary	906	3 6	21	11	6	24	7 10	0	11	7	661	17 10 ²	15	15	2 ²	303	2 10	7	4	4
	10,165	13 3	16	7	5	643	13 8	1	0	9	4,304	0 3 ²	6	18	7 ²	2,737	6 2	4	8	2
IRISH.																				
South Charitable Infirmary & County Hosp., Cork ..	1,007	6 6	15	14	9	77	14 3	1	4	3	404	13 5	6	6	6	254	8 9	3	19	6

* Includes Repairs.

† Included in Domestic Expenses.

‡ 1887 and 1888 only.

WITHOUT MEDICAL SCHOOLS, BUT WITH 100 BEDS OR OVER.

(Average of Years 1887, 1888, and 1889.)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
		£ s. d.	£ s. d.	£ s. d.	
10,342	..	47 4 7	52 4 0	3 10 3	13 to 1
7,040	..	52 15 3	57 17 8	4 11 7	12 to 1
1,063	..	35 14 4	36 11 4	2 16 2	13 to 1
..	..	42 13 3	44 19 5	3 4 4	13 to 1
53	..	55 7 6	66 9 10	4 13 6	12 to 1
4,977	..	29 4 4	31 16 0	2 13 8	11 to 1
1,636	..	64 0 5	66 19 2	4 14 8	14 to 1
25,101	..	43 10 1	47 1 11	3 9 9	13 to 1
11,885	..	29 1 2	38 6 11	1 18 11	15 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.

* 1887 and 1888 only.

Expenditure under all Heads.

Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.
Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	Amount.	Average Cost per Bed occupied.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
2,220 14 6	14 16 1	..	..	£74 3 0	5 16 7	228 7 5	1 10 5	512 1 5	3 8 3	7,829 19 2
1,205 1 0	13 13 10	..	..	416 8 10	4 14 8	98 17 10	1 2 6	288 11 5	3 5 7	5,093 17 9
1,368 13 1	8 6 11	12 13 4	0 1 7	118 14 2	0 14 6	87 1 6	0 10 7	274 7 4	1 13 5	5,997 4 6
380 4 6	8 16 10	10 0 0	0 4 8	197 10 2	4 11 10	99 5 2	2 6 2	109 19 2	2 11 2	1,933 13 4
454 17 0	11 19 5	..	..	46 15 9	1 4 7	419 15 2	11 0 11	126 8 6	3 6 6	2,526 14 1
762 17 4	7 18 11	..	..	80 14 4	0 16 10	..	..	85 4 10	0 17 9	3,052 19 3
740 1 2	17 12 5	6 13 9	0 3 2	..†	..†	41 13 4	0 19 10	128 6 1	3 1 1	2,812 6 4
7,132 8 7	11 9 8	29 7 1	0 0 11	1,734 6 3 ^{**}	2 15 10 ^{2*}	975 0 5	1 11 5	1,524 18 9	2 9 1	20,246 14 5
446 4 3	6 19 5	..	..	..	..	..	..	263 14 3	4 2 5	2,454 1 5

^{**} Approximate, as in one case Repairs have been included in Domestic Expenses.

PROVINCIAL, SCOTCH, AND IRISH HOSPITALS

Patients, Beds, and Comparative Cost.

Name.	Number of Beds.	Daily Average No. of Beds occupied.	No. of In-patients.
<i>CONSUMPTION—Provincial.</i>			
Royal National Hospital for Consumption, Ventnor	137	130	677
<i>HOSPITAL FOR CHILDREN—Provincial.</i>			
General Hospital and Dispensary for Sick Children, Manchester	140	115	1,222
<i>HOSPITAL FOR WOMEN AND CHILDREN—Provincial.</i>			
Bristol Hospital for Sick Children and Women	99 ⁺	81	700
<i>LYING-IN—Irish.</i>			
Rotunda Lying-in, Dublin	105	55	1,968
<i>OPHTHALMIC—Scotch.</i>			
Glasgow Eye Infirmary	112	60	1,136
<i>FEVER—Scotch.</i>			
Small-pox and Fever Hospital, Glasgow §	540	327	3,000||
<i>FEVER—Irish.</i>			
Cork Street Hospital, Dublin	120	54	753

* Arrived at by dividing the total expenditure (after deducting one shilling for each out-patient, and all extraordinary expenses) by the daily average number of beds occupied.

Detailed Analysis of

Name	Provisions.						Alcohol.						Domestic Expenses.						Surgery and Dispensary.					
	Amount.			Average Cost per Bed occupied.			Amount.			Average Cost per Bed occupied.			Amount.			Average Cost per Bed occupied.			Amount.			Average Cost per Bed occupied.		
CONSUMPTION— <i>Provincial.</i>	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Royal National Hosp. for Consumption, Ventnor } ..	3,234	15	6	24	17	8	195	19	2	1	10	2	1,537	9	4	11	16	6	349	8	6	2	13	9
HOSPITAL FOR CHILDREN— <i>Provincial.</i>																								
General Hosp. & Disp. for Sick Child. Manchester } ..	1,953	2	3	16	19	8	..*			..*			1,228	8	6	10	13	8	493	11	11	4	5	10
HOSPITAL FOR WOMEN & CHILDREN— <i>Provincial.</i>																								
Bristol Hosp. for Sick Children and Women .. } ..	717	13	6	8	17	2	12	9	2	0	3	1	658	7	6	8	2	7	283	12	8	3	10	0
LYING-IN— <i>Irish.</i>																								
Rotunda Lying-in, Dublin ..	1,070	2	2	19	9	2	63	13	11	1	3	2	714	13	0	12	19	10	232	15	0	4	4	8
OPHTHALMIC— <i>Scotch.</i>																								
Glasgow Eye Infirmary ..	855	9	9	14	5	2†	..‡			..‡			661	9	2	11	0	6	303	1	2	5	1	0
FEVER— <i>Scotch.</i>																								
Small-pox and Fever Hospital, Glasgow } ..	5,602	15	3	17	2	8	304	7	8	0	18	7	3,636	5	9	11	2	5	724	8	9	2	4	3
FEVER— <i>Irish.</i>																								
Cork Street Hosp., Dublin ..	1,214	6	6	22	9	9	67	9	10	1	5	0	701	8	11	12	19	9	82	6	1	1	10	6

* Included in Surgery and Dispensary.

† Inclusive of Alcohol.

‡ Included in Provisions.

FOR SPECIAL DISEASES, WITH 100 BEDS OR OVER.

(Average of Years 1887, 1888, and 1889)

No. of Out-patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
..	..	£ s. d. 69 4 11	£ s. d. 86 18 11	£ s. d. 13 5 11	5 to 1
10,424	..	56 9 2	60 19 9	5 6 3	11 to 1
3,369	..	33 7 1	35 16 2	3 17 2	9 to 1
7,901	1,387	54 5 2	61 8 10	1 10 4	35 to 1
10,450	..	40 0 6	49 16 5	2 2 3	19 to 1
..	..	46 13 0	46 13 0	5 1 8	9 to 1
..	..	76 15 7	87 1 2	5 10 1	14 to 1

† Arrived at by dividing the total expenditure, without any deduction, by the daily average number of beds occupied.
* Average of the three years, but had over 100 beds after 1887. § 1887 only. || Approximate.

Expenditure under all Heads.

Salaries and Wages.						Pensions.						Repairs.						Extraordinary Expenses.						Incidental Expenses.						Total.						
Amount.						Average Cost per Bed occupied.						Amount.						Average Cost per Bed occupied.						Amount.							Average Cost per Bed occupied.					
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.										
1,712	19	2	13	3	6	..	..	..	484	3	5	3	14	6	2,301	1	7	17	14	0	1,487	0	0	11	8	9	11,302	16	8				
2,233	4	10	19	8	5	..	..	..	453	18	3	3	18	11	..	..	..	651	8	2	5	13	3	7,013	13	1	..	..	..				
838	10	4	10	7	1	..	..	..	189	3	10	2	6	9	30	10	6	0	7	6	170	3	4	2	2	0	2,900	10	10				
641	8	1	11	13	3	50	0	0	18	2	369	19	9	6	14	6	..	..	236	14	0	4	6	1	3,379	5	11	..	..					
891	0	1	14	17	0	65	3	6	1	1	9	213	0	2	3	11	0	2,989	3	10						
4,475	10	11	13	13	9	..	..	..	415	2	0	1	5	5	..	..	..	96	12	9	0	5	11	15,255	3	1	..	..	..				
1,109	3	11	20	10	10	12	2	8	0	4	6	594	12	9	11	0	3	555	4	4	10	5	7	364	8	10	4,701	3	10							

|| Includes Repairs.

** Included in Domestic Expenses.

†† 1887 only.

PROVINCIAL, SCOTCH, AND IRISH HOSPITALS.

(Forgoing Tables Summarised.)

Expenditure, Accommodation, and Work Done.—This table brings all the tables together, and shows the average of the number of beds, of the number of patients relieved, the average expenditure under the various heads, with the average total expenditure of the larger (i.e. those having 100 beds or over) Provincial, Scotch, and Irish, General and Special, Voluntary Hospitals. (Average of three years, 1887, 1888, 1889.)

Class.	Beds.	In- patients.	Out- patients.	Pro- portion of In- patients to Beds occu- pied.	Pro- visions.	Alcohol.	Doc- metic Ex- penses.	Sur- gery & Dis- pensary.	Salaries and Wages.	Pen- sions.	Re- pairs.	Ex- tra- ordi- nary Ex- penses.	In- ci- dental Ex- penses.	Total.
GENERAL HOSPITALS, WITH MEDICAL SCHOOLS:—														
Provincial	7,442	28,653	203,281	909	14 to 1	37,874	£ 18,176	16,173	28,500	335	£ 4,663	£ 3,644	£ 6,202	117,556
Scotch and Irish ..	2,312	22,359	134,010	23	12 to 1	28,163	11,819	8,422	20,876	475	3,743	1,086	4,636	101,692
Do, WITHOUT SCHOOLS:—														
Provincial	5,167	43,168	220,128	..	12 to 1	22,220	31,206	27,436	48,040	387	11,000	7,360	11,200	215,555
Scotch	1,103	7,759	25,101	..	13 to 1	10,166	4,304	2,737	7,132	29	1,734	975	1,325	20,446
Irish	104	956	11,885	..	15 to 1	1,007	73	254	446	..	..	..	294	2,454
SPECIAL HOSPITALS:—														
Consumption	117	677	..	..	5 to 1	3,235	1,537	349	1,713	..	484	2,304	1,487	11,302
(Children	140	1,222	10,424	..	11 to 1	1,953	1,258	494	2,233	..	484	..	651	7,013
Women and Children ..	99	700	3,616	..	9 to 1	713	12	658	284	..	150	31	170	2,601
Orphan	105	1,063	7,901	1,357	35 to 1	1,070	64	715	233	50	370	65	237	3,360
Orphan	112	1,136	10,450	..	65	353	304	233	891	..	..	..	253	15,285
Fever	506	3,606	..	..	19 to 1	55	3,606	782	4,101	..	..	..	474	15,285
Irish	120	753	..	..	14 to 1	1,213	67	762	1,169	12	593	555	395	4,704
Totals *	15,471	112,363	637,349	3,409	12 to 1	165,087 [†]	75,032 [†]	57,841 [†]	116,925	1,338	24,553 [†]	16,011	27,137	518,044

* The totals in the columns marked with the asterisks are approximate only, for the reasons shown in the respective tables.

† Glasgow Royal Infirmary, including Provisions, Alcohol, Surgery and Dispensary.

‡ Has now over 100 beds.

Patients, Beds, and Comparative Cost.

Class	No. of Beds.	Daily Average No. of Beds occupied.	No. of In- patients.	No. of Out- patients.	No. of Lying-in Cases attended.	Average Cost of each Bed occupied.*	Average Cost of each Bed occupied on the Total Expenditure.†	Average Cost of each In-patient.	Proportion of In-patients to each Bed occupied. (Average.)
GENERAL HOSPITALS, WITH MEDICAL SCHOOLS:—									
Provincial	2,442	1,996	23,653	203,281	999	£ 50	£ 50	£ 50	14 to 1
Scotch and Irish ..	2,312	1,956	22,359	134,010	23	9 5	7 11	13 1	12 to 1

GENERAL HOSPITALS, WITHOUT MEDICAL SCHOOLS.	
Provincial ..	5,167
Scottish ..	1,113
Irish ..	104
SPECIAL HOSPITALS:—	
Consumption ..	137
Children ..	146
Women and Children ..	1,222
Lebanon ..	81
Opthalmic ..	984
Lebanon ..	105
Opthalmic ..	112
Fever ..	1,130
Irish ..	327
Irish ..	54

Totals ..

12,471

9,204

112,363

637,349

2,469

50

15

2

55

19

2

4

3

2

12

10

1

12

10

1

1

1

1

1

1

1

1

1

1

1

1

1

* Arrived at by dividing the daily average number of beds occupied into the total expenditure, after deducting one shilling for each out-patient, and all extraordinary expenses.

† Arrived at by dividing the daily average number of beds occupied into the total expenditure, without any deduction.

‡ Has now over 100 beds.

Detailed Analysis of Expenditure under all Heads.

Cases.	Provisions.		Alcohol.		Domestic Expenses.		Surgery and Dispensary.		Salaries and Wages.		Pensions.		Repairs.		Extraordinary Expenses.		Incidental Expenses.		Total.
	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	Amount.	Average Cost per bed occupied.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
GENERAL HOSPITALS, WITH MEDICAL SCHOOLS:—																			
Provincial ..	37,374 19 6	2,629 1 6	3,181 16 9	1,647 3 5	1,716 47 8	1,647 3 5	28,559 14 5	10 335 0 4	4,663 2 6	9 3,644 1 16	6,592 3 3	118,556							£
Scottish ..	26,163 20 4	1,153 0 1	2,118 19 2	8 9	11,819 8	9 11	20,876 10 19	1 425 0 4	3,748 1 19	4 1,050 0 11	4,636 2 3	8,101,692							
Irish ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Provincial ..	3,235 24 17	8 196 1 10	1,537 11 16	349 2 13	9 1,228 10 13	8 494 4 10	2,233 19 8	5 5	4,663 2 6	9 3,644 1 16	6,592 3 3	118,556							£
Scottish ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Irish ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
SPECIAL HOSPITALS:—																			
Consumption ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Children ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Women and Children ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Lebanon ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Opthalmic ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Lebanon ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Opthalmic ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Fever ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Irish ..	1,007 15 14	9 78 1 4	4,324 6 6	254 3 19	6 20,953† 40 15 3	8 4	7,274 86 7	4 10	48,049 12 13	8 387 0 2	0 11,900 3 2	9 7,360 1 18	10 11,200 2 19	0 215,555					
Totals ..	165,087 19 0	10,232 1 3	75,028† 12 81	57,841 6 13	2,118 19 2	8 9	11,819 8	9 11	20,876 10 19	1 425 0 4	3,748 1 19	4 1,050 0 11	4,636 2 3	8,101,692					
Provincial ..	165,087 19 0	10,232 1 3	75,028† 12 81	57,841 6 13	2,118 19 2	8 9	11,819 8	9 11	20,876 10 19	1 425 0 4	3,748 1 19	4 1,050 0 11	4,636 2 3	8,101,692					
Scottish ..	165,087 19 0	10,232 1 3	75,028† 12 81	57,841 6 13	2,118 19 2	8 9	11,819 8	9 11	20,876 10 19	1 425 0 4	3,748 1 19	4 1,050 0 11	4,636 2 3	8,101,692					
Irish ..	165,087 19 0	10,232 1 3	75,028† 12 81	57,841 6 13	2,118 19 2	8 9	11,819 8	9 11	20,876 10 19	1 425 0 4	3,748 1 19	4 1,050 0 11	4,636 2 3	8,101,692					

* The totals in the columns marked with the asterisks are approximate only, for the reasons shown in the respective tables.

† Glasgow Royal Infirmary, including Provisions, Alcohol, Surgery and Dispensary.

‡ Not inclusive of Glasgow Royal Infirmary.

What constitutes reasonable expenditure? This question will at once arise in the minds of those who have carefully examined the foregoing tables. It is one which the hospital managers must face, and find an adequate answer to. We have already stated that, on an average, £70 per occupied bed should suffice to supply the best-administered hospital with every possible requirement, a liberal dietary, and an efficient staff. We shall therefore content ourselves with drawing attention to the marked differences the tables display, and with commending them to the careful consideration and investigation of those most interested in the successful administration of the charities concerned. Our desire is to help to ascertain what is a reasonable sum to expend per occupied bed in a hospital of each class, when due regard has been paid to every consideration which tends to secure efficiency and the utmost advantage to the patients treated. We invite the co-operation of everybody in the investigation upon which we have entered, knowing full well that the better an institution is managed, the more anxious are those responsible to obtain information and assistance which will tend to help them to decide whether expenditure can be curtailed, where it may reasonably be increased, and in what way, if at all, a change of system or an alteration in the methods of procuring stores will cause each available pound to go further in promoting the objects of the charity, than it does at present.

GENERAL SUMMARY.

We have thought it may be helpful for purposes of easy reference and comparison to summarise the average cost of each bed occupied during the three years, 1887, 1888, 1889. This is arrived at by dividing the total average number of beds occupied into the total expenditure, with a deduction of one shilling per out-patient and all extraordinary expenses.

Altogether, we have the average expenditure for 127 institutions situated in the United Kingdom, of which eighty-five are general and forty-two are special hospitals. The information comes out as follows :—

London.

Of the fifty-seven hospitals in London of which the expenditure has been analysed in the above tables, forty-three (of which sixteen were general and twenty-seven were special), or 75·44 per cent. have spent on a three years' average over £70 per occupied bed. This only leaves fourteen hospitals which have spent under £70

per occupied bed (seven general and seven special), or less than 26 per cent. of the total.

Over £100 per bed occupied.—There are nineteen hospitals in this group, of which three are general hospitals and sixteen are special hospitals.

Over £90 per bed occupied.—There are five hospitals: three general and two special.

Over £80 per bed occupied.—Eleven hospitals form this group: five general and six special.

Over £70 per bed occupied.—There are eight hospitals: five general and three special.

Over £60 per bed occupied.—There are eight hospitals: five general and three special.

Over £50 per bed occupied.—There are four hospitals: two general and two special.

Over £40 per bed occupied.—There is one special hospital.

Over £30 per bed occupied.—There is one special hospital.

Provincial.

Of the fifty-one provincial hospitals given in the tables, fifty, or over 98 per cent., have spent under £70 per occupied bed. The accounts of only four special hospitals have been analysed.

Over £70 per bed occupied.—One general hospital comes under this head.

Over £60 per bed occupied.—Three general hospitals and one special hospital form this group.

Over £50 per bed occupied.—There are twenty-nine hospitals in this group: twenty-eight general and one special.

Over £40 per bed occupied.—There are thirteen hospitals in this group, all general hospitals.

Over £30 per bed occupied.—Of the four hospitals forming this group, three are general and the other a special hospital.

Scotch.

The accounts of twelve Scotch hospitals, it will be seen, have been analysed, of which ten are general and two are special. All these have an expenditure of under £70 per occupied bed.

Over £60 per bed occupied.—There is one general hospital under this head.

Over £50 per bed occupied.—There are three general hospitals under this head.

Over £40 per bed occupied.—There are six hospitals in this group : four general and two special.

Over £30 per bed occupied.—One general hospital belongs to this group.

Over £20 per bed occupied.—One general hospital comes under this head.

Irish.

Of the seven Irish hospitals, six are under £70 per occupied bed (five general and one special), while one special hospital has spent *over £70 per bed occupied.*

Over £60 per bed occupied.—One general hospital belongs to this group.

Over £50 per bed occupied.—There are two hospitals with such an expenditure, one general and one special.

Over £40 per bed occupied.—There are two general hospitals under this head.

Over £20 per bed occupied.—One general hospital belongs to this group.

We see from the above that out of seventy provincial, Scotch, and Irish hospitals, only two have an expenditure of over £70 per bed occupied, leaving the remaining 97 per cent. under £70 per occupied bed—a startling difference when compared with London, where more than 75 per cent. spend *over £70 per occupied bed.*

BRITISH HOSPITAL EXPENDITURE IN THE PRESENT DAY COMPARED WITH A QUARTER OF A CENTURY AGO.

In considering the question of hospital expenditure now and formerly, much light is thrown upon the causes of the increased cost by a consideration of the vast improvement which has taken place in the surroundings of the patients, the food supplied to them, the quality of the nursing, the general hygienic and antiseptic precautions adopted in the wards, and the modern system of drainage. Every one of these modern improvements has entailed a certain amount of additional expenditure. Very many thousands of pounds have been spent upon the re-draining and sanitary arrangements of the best modern hospitals. The cost of the nursing has at least quadrupled, and, although this considerable growth in cost may give rise to criticism, there can be no doubt that it has been abundantly justified by the added comfort of the patients, the general efficiency of the administration, the reduction of the death-rate, and the expedition which now characterises modern treatment of disease in our hos-

pitals. A quarter of a century ago nurses were untrained, they very often slept in the basement, or were mere helps introduced from outside—such helps when employed as night nurses being so inefficient that it was notorious how immoral and drunken they were as a class. The present writer's experience goes a long way to prove that the majority of these women consented to accept 10s. 6d. a week for sleeping in the hospital wards, instead of sleeping in their own beds at home. In those days the majority held that there was no necessity for putting the best nurses on night duty, seeing that the patients slept, or ought to sleep, and that there was little or nothing to do during the night, in ministering to the comforts and needs of patients in hospital wards. Nowadays every well-administered hospital has a separate nursing home, and each nurse has a bedroom to herself, a special *cuisine* being provided for the nurses, who have also the advantage of handsome sitting-rooms, well-stocked libraries, longer holidays, and a provision against old age and sickness, or at least a strong encouragement to provide these necessities for themselves at the smallest possible cost, through the Royal National Pension Fund for Nurses. Although the initial cost of the new homes provided for the nursing staff has been large, the actual expenditure per head upon their maintenance has shown but little, or relatively little, increase; yet the nurse's table is supplied with an abundance of wholesome food, which is carefully varied and sent up well cooked in an appetising manner.

There has been a considerable increase in the expenditure on surgical appliances and dressings, due in no small degree to the introduction of the antiseptic treatment. These changes have resulted in reducing the death rate in the case of the major operations from 40 per cent. to 25, and even, at the present time, to something like 4 per cent. in the best-administered hospitals. The fact that it has been possible for the managers of our voluntary hospitals to meet this increased expenditure and to maintain their efficiency, goes far to prove that the British public are prepared to supply adequate funds for the support of our hospitals, provided always a reasonable assurance is given to them that the money entrusted to the committees will be carefully expended in the best interests of the patients. Mr. J. S. Wilkinson, secretary of St. Mary's Hospital, in 1868 prepared a report upon hospital expenditure, which was afterwards published by order of the weekly committee. This report attracted a great deal of attention at the time, and contains figures, prepared upon an identical basis with great care and accuracy, which enable us to give the

following table showing the increased cost of maintenance of patients in London and provincial hospitals since the year 1868 :—

Table showing the Increased Cost of Maintenance of Patients in London and Provincial Hospitals since the Year 1868.

LONDON AND PROVINCIAL HOSPITALS.	1868.	Average for Three Years, 1887-1889.
LONDON.		
<i>General Hospitals.</i>		
Charing Cross Hospital	£ 60	£ 94
Guy's Hospital	46	81
King's College Hospital	59	101
London Hospital	59	74
Middlesex Hospital	62	86
St. Bartholomew's Hospital	58	112*
St. George's Hospital	57	80
St. Mary's Hospital	58	77
University College Hospital	77	93
Westminster Hospital	40	66
Seamen's Hospital	56	58
<i>Special Hospitals.</i>		
Cancer Hospital	124	106
Sick Children's Hospital	53	82
Brompton Consumption Hospital	54	88
Lock—Male and Female	33	56
London Fever Hospital	38	115
Royal London Ophthalmic Hospital	44	54
PROVINCIAL.		
Birmingham General Hospital	46	54
Birmingham, Queen's Hospital	43	56
Bradford Hospital	57	48
Brighton, Sussex County Hospital	58	73
Cambridge, Addenbrooke's Hospital	45	49
Gloucester General Infirmary	44	57
Hull Royal Infirmary	35	53
Leeds Hospital	39	52
Leicester Hospital	32	49
Liverpool Royal Infirmary	35	50
Newcastle-on-Tyne Infirmary	31	48
Margate Sea-Bathing Infirmary	39	—
Norfolk and Norwich Hospital	39	54
Winchester, Hants County Hospital	49	60
Sheffield Infirmary	30	53
Staffordshire Infirmary	50	48
Edinburgh Royal Infirmary	36	53
Glasgow Royal Infirmary	31	45

* 1889 only.

It will be seen from the above table that the cost per bed has increased from 25 to 50 per cent. in the majority of the hospitals.

We believe that this extra money has on the whole been well expended, in the best interests of the patients ; but we must repeat what we have already said, that the figures produced in the above table and those tables which have appeared on earlier pages, must convince most thoughtful people that the time has arrived when a conference should take place between the managers of the chief hospitals, with a view to reducing the expenditure per bed to an average cost, so that the enormous discrepancies existing at the present time may be gradually and entirely overcome.

The cost of administering poor law infirmaries and the hospitals of the Metropolitan Asylums Board are given in the two following tables, prepared by Dr. Steele, and attached to a paper which he read before the Statistical Society on the "Charitable Aspects of Medical Relief," and which was printed in the Society's *Journal* for June 1891 :—

METROPOLITAN POOR LAW INFIRMARIES.

Number for wh. h Certific. l.	—	Average Annual Cost per occupied Bed.	Total Dis- bursements
		£	£
331	Camberwell	30	9,793
386	Chelsea	34	12,974
486	Fulham	40	19,262
296	St. George's in the East	36	10,634
776	St. George's, Hanover Square	30	23,345
538	Greenwich	33	17,826
487	Hackney	35	16,954
625	Holborn	30	18,630
500	Islington, St. Mary's ... (doubtful)	30	15,000
604	Kensington	35	21,170
622	Lambeth	32	19,689
645	City of London	29	18,592
744	Marylebone	38	28,619
469	Mile End Old Town	21	9,913
388	St. Olave's	35	13,611
523	St. Pancras	40	20,702
786	St. Saviour's	69	54,578
472	Shoreditch	35	16,479
618	Wandsworth and Clapham	31	19,107
213	Woolwich	34	7,168
264	Central Sick Asylum, Cleveland Street	40	10,497
586	Stepney and Poplar	40	23,286
284	Paddington	50	14,303
689	Whitechapel	30	20,403
12,332	—	—	442,535

Fractions of £1 under 10s have been disregarded in the above entries ; 10s. or above has been entered as £1.

METROPOLITAN ASYLUMS BOARD.

Table showing the Average Number Maintained at the separate Hospitals, the Annual Cost per Head and Total Expenditure, exclusive of Rent and Special Works, of the Year ended at Lady Day, 1891.

HOSPITAL.	Average Number.	Total Expenditure.			Average Cost per Patient.		
		£	s.	d.	£	s.	d.
Eastern	341	21,915	13	6	64	5	5
South Eastern	267	18,858	3	9	70	12	7
Western	176	12,706	12	4	72	4	0
South Western	178	14,476	6	8	81	6	7
North Western	276	15,244	9	8	55	4	8
Northern Convalescent	398	20,826	3	5	52	6	6
Hospital Ships	Barely 2	7,175	8	8	—	—	—
* Gore Farm	—	6,317	0	1	—	—	—
	—	118,060	5	1	—	—	—

* Open only a portion of the year, and very few patients admitted.

It will be seen that the average cost of maintaining a patient in a poor law infirmary is from 50 to 75 per cent. less than that entailed by treatment in a voluntary hospital. At the Metropolitan Asylums Board Hospitals, again, the expenditure is very frequently unaccountably large, the average cost per patient varying from £81 6s. 7d. to £52 6s. 6d. Such differences as these excite many reflections, which we hope those responsible may take to heart. Then, but not till then, the discovery of more economical methods, without lessening for one moment the efficiency of the hospitals, will speedily be made. There can be no doubt that a prodigal expenditure gives rise to extravagance and waste which ought to be avoided by the majority of our hospitals which are dependent upon voluntary aid to supply the necessary funds for their maintenance and support.

CHECKS ON EXPENDITURE.

There can be no doubt that one great cause of the relatively large expenditure of Metropolitan, as compared with provincial, hospitals arises from the system of having as resident medical officers men who have only just qualified. For this reason these officers necessarily have no administrative experience or training, and therefore are not alive to the desirability of exercising economy in the ordering of medical comforts, extras and appliances. They

are usually appointed for six months only, and as it is a great privilege to secure election, a resident, by the traditions of his office, likes to signalise his tenure by having every thing of the best. Hence the ordering of diets especially falls largely into the hands of the sisters, who, having greater experience, usually get anything they want ordered for a particular case. In the matters of dressings and bandages the extravagance is usually great, especially at clinical hospitals, where the students, having no knowledge of their value and cost, very frequently waste a good deal of material which might and would be saved were the cases entirely in the hands of a careful surgeon or of a trained nurse of experience. Some idea of the expense of this system may be gathered from the circumstance that an inquiry has shown, that a change in the *personnel* of the house surgeon or of the house physician of a provincial hospital means an increased expenditure in the first year of something like £200 for each new officer. In the provincial hospitals the system is to appoint a house surgeon or house physician who remains in office for from three to five years, at the end of which period each of these officers hopes to be able to engage in practice in the town or district where the institution is situated. It follows as a matter of course, that it is to the interest of the house surgeon or house physician to study the economical administration of his department during his term of office, and to save as much as possible in all directions. During the first year of office, having little or no experience, such an officer has everything to learn, and of course his instruction is gained at the expense of the institution to which he is appointed. In process of time these officers come to see that the patients do equally well on simple diet, and that many of them lay themselves out to secure extras which their cases do not necessitate. This leads to a check being gradually exercised over the whole expenditure, and to a material reduction in the cost of each occupied bed.

At the Scotch hospitals, where thrift is a prominent feature of the administration, very great care is exercised in all directions to secure the maximum of economy throughout the establishment. It cannot be questioned, that were the whole of the medical staff paid, and did the tenure of their appointments depend in a measure upon the economical administration of their wards, a saving of at least 25 per cent. in the expenditure would immediately follow the introduction of such a system.

In dealing with the out-patient question, we have given our

reasons at length for the belief that the best interests of the medical profession, of the institutions, and of the public, demand that the voluntary system of medical relief should be given up in favour of a system which provides payment for all medical services rendered. We need not, therefore, repeat our reasons here. The need for an alteration of the system is eloquently testified to by the results secured by the Board of the Edinburgh Royal Infirmary. At this institution the expenditure upon the patients of each of the honorary medical staff is carefully recorded. All the books are kept upon a system which makes it possible to bring out in the monthly return the relative cost of treating patients under each physician and surgeon. A set of the forms used will be found in the Appendix to the present volume. They include—

1. A monthly return of the consumption of wine, spirits, malt liquors and aerated waters in each ward, and the actual expenditure resulting from the orders given by each member of the medical staff.

2. A monthly return of the consumption of butcher's meat and extra articles of diet, showing the cost as in Return 1.

3. A monthly return of surgical dressings used in the treatment of the cases under each of the surgeons, the number of patients, the total cost, and the cost per patient.

No item in the diet sheet gives rise to greater extravagance than aerated waters. We have, therefore, given in the Appendix a page from the Daily Issue Book of the Edinburgh Royal Infirmary. We have also included a page from the Daily Issue Book for stimulants, because both are well conceived, and their general use must tend to aid in securing a considerable saving in the cost of those institutions where they may be introduced.

Copies of these returns are submitted to the Board, and are also furnished monthly to the superintendent and to each of the principal physicians and surgeons. In practice, the system has proved most effective in reducing expenditure. Dr. A., for instance, sees that his patients cost considerably more than Dr. B.'s, and as a result he goes down to the infirmary when the monthly return is delivered, and, accompanied by the resident medical officer, he carefully revises the whole of the diets and list of extras, so as to secure that he shall not occupy in the succeeding month the invidious position of spending twice as much as any of his colleagues upon the cases which occupy beds allocated to himself. We have visited the Edinburgh Royal Infirmary, conferred with the superintendent, examined the system and its results, and have formed the conclusion that its general

adoption would tend to bring down the expenditure in metropolitan and provincial hospitals to an extent which would largely remove the existing differences in the actual cost of each bed occupied in each of the principal British hospitals.

Very many and varied attempts have been made by the lay committees to control the expenditure in the wards. It has been usual for them to make inquiries which have resulted in proving that certain cases were costing a great deal of money, and then to refer the matter to the medical officers, resident and honorary, who are immediately concerned. Having no knowledge of medical treatment, the result can easily be surmised. It almost invariably happens that the particular cases singled out for examination are those of a special nature, where extraordinary expenditure is fully justified by the circumstances of the case, its emergency, and severity. In some instances, with the object of enlisting the co-operation of the medical staff, the practice prevails of either (1) making the whole of the honorary physicians and surgeons members of the committee of management, or (2) empowering the medical board to elect two physicians and two surgeons as members of the general committee.

In practice, small results have followed the adoption of either of these courses, owing chiefly to the notorious fact, that there is no profession where jealousies prevail to anything like the same extent as they do in the medical, and each physician and surgeon has felt great delicacy in calling in question the work and treatment of his colleagues. For all these and many other reasons we are convinced that the system introduced at the Edinburgh Royal Infirmary is the only one calculated to affect materially the expenditure of a great hospital, and for this reason we strongly recommend its general adoption to the committee of every institution which desires to be economically and properly administered.





CHAPTER IX.

GENERAL ARRANGEMENTS FOR THE COMMISSARIAT.



ONE who has given close attention to the figures which appear in the previous chapter, showing the relative cost of each bed at the various hospitals, and the enormous differences under each head of expenditure, can doubt that a very large saving could be effected by organisation. If the managers of the various hospitals could be induced to combine, with the object of securing supplies of the best possible quality from one central store, the saving might be immense. This plan has been organised with great success in France and Belgium, and at the end of this chapter we give an account of the system in existence in the latter country. In Paris, the sisters of mercy have organised a central store, at which all hospitals can purchase at little over cost price every necessary article, from an egg to a wooden leg. We should be inclined to think that for the purposes of this country it would be well to start such a store. The financial risks must, of course, be undertaken by men of business independently of the hospitals, but the whole organisation should have representatives of the hospitals on its direction, and include the names of the chief institutions on its list of customers.

Such an enterprise might easily be managed on the same plan as that adopted by the Civil Service, Army and Navy, and Junior Army and Navy Stores. It might offer life-members' tickets, or tickets available for a certain number of years, or annual tickets, so that the committees of the institutions could thus attach themselves to the organisation, and so secure all the benefits of the central store. We are aware that some of the hospital managers

consider that this system would be an undue interference with the private trader ; but an investigation which we have made goes far to show that, in the metropolis especially, most of the goods used are supplied by those who have no claim of any kind upon the institutions, and so this objection falls to the ground. In the provinces, to a considerable extent, the supplies are procured from London and other centres where the best articles can be obtained at the cheapest rates.

But apart from and beyond this we have found, and hold to the opinion, that it is a wrong principle to ask, or even to accept, a subscription from a tradesman on the ground that he supplies goods to a public institution, because it is false economy, and the so-called gift of a relatively small sum per annum may act detrimentally to the best interests of the hospital in more ways than one. If dissatisfaction is expressed with the quality of the goods supplied, for example, it is often urged that after all one must remember that the house sending in the goods is an important subscriber to the funds of the society. It has happened in the writer's experience that a trader has offered a subscription, or threatened to withdraw his subscription, either to get an order or to resist the insistence of a literal fulfilment of a contract. Thus the argument that public institutions dependent on the contributions of the public for their maintenance cannot with any justice or safety become affiliated to a central store in the best interests of the patients and their administration, is misleading, and opposed to all sound principles of business and economy. Again, the committee and officers of a public institution, so far as the funds entrusted to them are concerned, are in the position of trustees. They have no right to expend one penny more upon the purchase of a given article than the lowest possible sum at which the said article of the best quality can be procured by anyone who has a knowledge of the markets and the best way of obtaining the article. To say that any committee or official is justified in paying more heavily to a given trader or firm because such trader or firm has a place of business in the immediate neighbourhood of the hospital, is to show a surprisingly small sense of the responsibilities of those who undertake to deal with public moneys and to expend them to the best advantage. The most that can be said in justice to the institution and to the trader is, that assuming certain requisite articles of the desired quality are procurable from the local trader at a price which gives an advantage to the hospital as compared

with other prices (those of the central store included), then, and only in such cases, an order should be given to him on the merits. After all, hospitals are bound to purchase in the cheapest market (always having due regard to quality), and their officers are bound to see that every penny produces goods equal to the outlay made upon them. Furthermore, no class of people in this country are more alive to the justice of the principles we are here maintaining than the traders themselves, and they, numbering among them as a body many benevolent men, would be the first to hold that they wished to give to a charity on its merits, and because it was their practice to contribute so much out of their income each year in this way. We are not speaking without great experience, and we are perfectly certain that the objections here dealt with may be disregarded in the best interests of the hospitals and of all concerned.

Let us next consider what a central store could do for the institutions. It could command the market if the hospital managers, as a body, would support it, and so secure that every article supplied was of the best possible quality, and that the prices were reduced in all cases to a minimum. If a man has a large turnover in a great business, he can buy much more cheaply; and owing to the fact that the goods do not remain on hand, but are rapidly distributed, such a central store could maintain a much higher quality of goods than it is reasonable to expect to obtain under other circumstances. We are disposed, however, to think that it would be wise in the management of any such store, if established, to begin tentatively, and not to endeavour at the outset to include every article used by the hospitals. It would be far better to take a certain number of articles in general demand, and to commence with a limited number of departments, gradually extending them, one by one, until the whole field was included. In this way much better results would probably be achieved, and the popularity and success of a central store could be more certainly guaranteed. We imagine that it would be very difficult, at the commencement at any rate, to attempt to supply meat, vegetables, and other provisions of a perishable character, although in process of time a system might be successfully organised which would reduce the price per bed on these items very materially. In any case, having regard to the experience of the working of the stores in Paris and Brussels, and also remembering the vast differences in the cost per bed exhibited in the returns by various hospitals of this country to-day, it is most desirable that an attempt should be made to

solve a difficult question by the establishment of a central store on sound principles, under capable management, with the co-operation and support of the principal medical institutions of the country. In the matter of surgical appliances and instruments, the business of supplying is now largely monopolised by a few firms. The establishment of such a store must, therefore, tend to average the expenditure upon these expensive items, and ultimately to procure for the hospitals the best articles at greatly reduced cost.

At the present time, each hospital has its own system of supplies. In most cases it is customary to issue tenders half-yearly or annually, and so to exercise a certain check upon expenditure. In practice, this system of contracts works very unequally, and, unless the authorities of an institution are fully alive to the state of the markets and to the necessity of instituting a system which will prevent the introduction of inferior articles and secure the immediate detection of any tampering with those who have it in their power to accept or reject the goods when delivered at the institutions, experience shows that goods supplied by tender have a habit of steadily deteriorating, and as a result grave and often well-founded complaints are made by the patients as to the quality of the food supplied. We are speaking now more especially of the voluntary hospitals; but anyone who desires to understand the results which it is possible to arrive at under the contract system, should study the reports issued by the Local Government Board. Those reports usually contain a list of the various articles supplied to workhouses and poor law infirmaries, and the prices at which they have been obtained. These prices show amazing differences. An item like potatoes, for instance, will cost one hundred per cent. more at one institution than it does at another. Rice, coffee, tea, and nearly every other item, reveal the same differences. The only fair conclusion to be drawn is, of course, that each institution has its own standard of quality, and that in some of them the quality is far below the standard which ought to prevail if due regard is paid to the welfare and claims of the inmates. We have further satisfied ourselves that price is very often no test of quality, and that sometimes an exorbitant price may be paid for a very indifferent article. No doubt, poor law institutions are very prone to the evils attaching to a system of patronage: and it is within recent experience that a man may stand as a guardian in order to help a neighbour to get a contract, in the same way that owners of "jerry-built" houses very often procure seats on the local sanitary

boards in order to enable them to grind down the poor, and to protect themselves from the legal penalties attaching to the maintenance of this class of property.

What, then, is the remedy for evils such as those we have been considering? Simply that each board or committee should appoint a small number of its members to investigate all contracts, and to exercise a watchful eye upon the way in which each contractor does his work.

The form of contract is of the first importance. It should empower the institution or its representatives to reject every article of inferior quality, and to purchase, without impeding or lessening the force or validity of the contract, articles of proper quality in their place from any person they may think fit to select, the difference in price, if any, as well as all attending and incidental costs and expenses, being borne by the defaulting contractor. In case of the occurrence of any such irregularity, or upon the repeated failure to fulfil any of the conditions, the committee of management should at all times have the power to terminate the contract whenever they may think desirable, without prejudice to the liability of the contractor for breach of contract up to such time. Every contract should also provide that the contractor should not transfer or assign any part, share, or interest he may have in it, either directly or indirectly, to any person or persons, without the written consent of the committee. In inviting tenders, care should be taken to intimate that the committee do not bind themselves to accept the lowest or any tender, and power should be reserved to terminate the agreement with the contractor, or any servant or person acting for him, who gives or attempts to give any fee, reward, or gratuity to any officer or servant of the institution.

So much for the conditions; but, as we have said, the form of tender is most important. In the old days it was customary—and so it sometimes is even at the present time—for hospitals to accept contracts for meat of two or three qualities in bulk. In practice, this system leads to a great amount of unnecessary waste, and is very often the cause of many complaints as to the quality of the food supplied. These complaints may be due, not only to the cooking or manner in which the food is supplied to the inmates, but may arise from an absence of knowledge or care on the part of the servant who has charge of the meat store, and who is responsible for cutting up the carcasses and issuing the joints and meat generally. With the object of removing any such evils, it is

desirable that any tender for meat should specify the joints, and that the price should be mentioned for each joint, so that there shall be no excuse on the part of the contractor, and he shall not have the option of sending what he has in his store, but only such quantities of each class as the requirements of the institutions may render desirable for each day in the week. There used to be a strong prejudice, on the ground of cost, against legs of mutton, than which no joint is more economical for hospital purposes. In those institutions where the art of tendering is thoroughly mastered, the specification sets forth as separate items legs of mutton (8 to 10 lbs. weight), shins of beef (without bone), stickings of beef (thick end, without bone or fat), sirloins of beef, loins of mutton, rounds of beef; silver-side (without bone), salted; rounds of beef, top side (without bone), fresh; shoulders of mutton, necks of mutton, ribs of beef; briskets of beef (without bone), salted; briskets of beef (without bone), fresh; mutton chops, beef steaks, veal, suet, calves' liver, lamb, pork (legs or loins), sheep's kidneys. The contractor has to give a separate price per pound for each of the foregoing, and then the steward or other official gives out his orders each day on a form identical with the contract, which specifies the amount in pounds weight of each that is required for the day's consumption. This form of tender has the further advantage that every contractor is put upon an identical basis as to price, and the decision must be given fairly and squarely. The consumption, during the previous quarter, of each joint specified is given in pounds, and when the tenders are opened it is easy to ascertain exactly how each contract will work out for the whole quarter at the prices given. In this way there can be no question of favouritism, and the only other point that the committee will have to consider in giving their decision is, how far past experience warrants them in trusting a given contractor, having regard to the quality of the provisions and the regularity and obligingness with which he has carried out former agreements.

We have given in the Appendix forms of specification for each of the chief articles of consumption used in hospitals; but it may be useful to summarise briefly the points which ought to be borne in mind, none of which should be omitted from the form of tender used by hospital committees. We have purposely confined ourselves here to the general conditions, as the Appendix contains the form of specification and the exact wording which should be used in order to secure a supply of the kind of article best adapted for the

purposes of an institution which has to provide for a number of sick people.

We will now take the articles in alphabetical order.

Bread, Flour, and Meal.—Bread should be the best household, well and properly baked and cooled, unadulterated, and free from alum. Flour should be best seconds, clean and free from grit, without any adulteration whatever. The best Scotch oatmeal only should be supplied.

Coal and Coke.—The coal which it is most economical to use is usually either Hartley's, Hetton's, Lambton's, Pelton's, or Stewart's, thoroughly screened and free from small pieces, dust, or slate; and the pit certificate should be produced. The other items are best gas coke and small coal, each of which should be tendered for separately.

Eggs, Butter, Bacon, and Cheese.—Good fresh eggs of an average weight of two ounces each should alone be accepted. The best salted butter, good mild bacon and the best American cheese will be found most satisfactory for use in a public institution.

Fish.—The fish should be good, fresh, and wholesome, and should be either brill, cod, haddock, herring, mackerel, plaice, soles, turbot, or whiting, properly cleaned and trimmed, without tail or offal, supplied in diets of eight ounces each.

Groceries.—The specification given in the Appendix is so full, if the list be closely adhered to, as to render further comment unnecessary.

Meat.—All the meat should be town-killed and of the prime quality, properly dressed and trimmed, ox beef and wether mutton being alone accepted.

Milk.—Good genuine unadulterated new milk, producing at least 10 per cent. of cream when tested by a lactometer, is the most suitable.

Potatoes.—Institutions should procure best Ware potatoes, dry and mealy, of the best quality, free from earth, of equal size, of one sort or description, and not weighing less than six to the pound.

Poultry.—Each bird should be properly plucked and drawn, and of not less than twenty-four ounces in weight when dressed for cooking.

Vegetables.—The specification sets forth the various vegetables in detail; but we may here add that they should be good, sound, fresh gathered, well trimmed, stripped of their outer leaves, and in a fit and proper state for cooking.

If the tenders used specify the details we have insisted upon,

then the committee will be easily able to protect themselves in case of necessity, and to secure for their patients excellent supplies on all occasions.

CENTRAL STORE AT BRUSSELS.

We have thought it useful to give the following particulars of the central store at Brussels, to supplement the remarks which we have been called upon to make on this point.

Prior to the year 1848 the directors of the hospitals and asylums in Belgium bought from various traders whatever was necessary for their respective institutions, after obtaining the authority of the council, only a few articles, such as beer, coal, meat, and butter, being supplied to them by the central administration. Towards the end of 1847, however, the council decided to obtain by contract the provisions necessary for the due service of its institutions, and to organise a central store for the reception and examination of the goods. Premises were accordingly taken at St. Jean for this purpose. Here an agent, who is appointed by the administration, sees that everything supplied fulfils the conditions required by the tariff, and he forwards the articles to the different institutions according to their needs, the directors of the institutions, on receiving the goods from the central store, having to see to their quality. In 1854, with a view to simplifying the books, the council decided to open an account with the Secretary-General, under the title of "Magasin Central." The return, categorically arranged, of all the supplies issued to the establishments during the year is made by the store clerk. The value of these supplies is entered as receipts on the one side to the "Magasin Central" account, and as expenses on the other to the indebted institutions.

The system on which the store is worked is shown pretty well by the following regulations concerning the central store of the Civil Hospitals of Liège, which may therefore be of interest. The store is placed under the supreme supervision of a member of the hospital commission specially delegated for this purpose. The special supervision, inspection of the store, and verification of the goods, are all performed by the comptroller, while the store is administered by a store clerk, who is personally responsible for the safe keeping of the articles entrusted to him. The accounts of the provisions include all articles which the administration keeps in store prior to putting them out for use or consumption, and comprise meat, butter, coffee, green peas, haricot beans, rice, prunes, oil of

poppies, white sugar, candy sugar, moist sugar, salt, gin, vinegar of apples, chocolate, chicory, white starch, blue starch, packing cloths, oil for burning, brooms, brushes, chamois leathers, green soap, and, finally, everything necessary for the making of articles of clothing and bedding.

The store has to be kept with great order and cleanliness, the provisions being classed categorically, and arranged so as to facilitate verification. The goods are received by experts appointed by the commission according to the terms inserted in the scale of contract prices. The supplies of butter, poppy-seed oil, gin, vinegar of apples, lamp oil, and green soap, are submitted, before being definitely accepted, to the examination of a chemist appointed by the commission, who reports upon each. The hospitals obtain all their supplies of the articles mentioned above from the central store, and special leave must be obtained from the commission before they can depart from this principle. The store clerk checks the books and balances the accounts on the last day of every three months, and, in case of verification, when this is being made. The accounts are closed on the 31st of December in each year.

In January of each year the store clerk draws up, in quantities and values, a general account of his stewardship in the previous year. This account, arranged in tabular form, details all operations undertaken and discharged, showing the acceptance and distribution, and the distinct or collective purpose of every article. It is then sent to the comptroller, who forwards it, after verification, to the commission with all the vouchers. The stores are thoroughly checked and verified once a year. An inventory is made of the provisions, furniture, and utensils, and this inventory is signed by the store clerk, the comptroller, and the appointed member of the commission. Independently of this regulation annual examination, extraordinary examinations may also be made. Whenever the comptroller verifies the goods in the store he checks and signs the registers, and makes an official report of his proceedings. If any discrepancies are detected, the store clerk gives his explanation of the deficit or surplus in the actual report, under his signature. No loss or damage is charged to the store clerk provided it is clearly proved to be the result of waste or defects incidental to the goods, or of superior force; but he can only plead the latter if he has made immediate declaration that the fact can in no way be imputed to carelessness, or lack of care or foresight on his part. But whatever the cause of the loss or deterioration may be, a decision of the

commission is necessary to effect the complete discharge of responsibility of the store clerk.

As to the success of the store the following figures, taken from the reports, will give a clear indication. On December 31, 1887, there were wines and goods of various kinds in the store to the value of about £1,500. Deliveries were made for the financial year 1888, amounting in cost to £10,800. Supplies were issued to the different hospitals and dispensary establishments worth £10,900, so that at the end of the year the goods remaining in the central store represented a sum of £1,400.

During 1888, 24 puncheons of red Bordeaux wine were supplied to the administration for the preparation of quinquina. This supply was made at a price of £10 per puncheon, delivered in cases in accordance with the mode of contract mentioned in the accounts for 1885.

During the same year an aggregate amount of 5,860 bushels of wheat were supplied by several contractors. On December 31, 1887, there were 447 bushels in stock, so that the total supply for the year was 6,307 bushels. Of this, 5,696 bushels were sent to be ground, so that on December 31, 1888, 611 bushels were left in the store. The expense during 1888 for the several purchases of wheat amounted to £3,203, the average price per bushel being, approximately, 11s.

The amount of flour in stock on December 31, 1887, was 333 bushels, and during the year 1888 the quantity obtained was 4,164 bushels, the total supply thus being 4,497 bushels. Of this, 3,954 bushels were sent to be baked, and 130 bushels to the Roger de Grimberghé Home at Middelkerke, the amount disposed of altogether thus being 4,084 bushels; so that on December 31, 1888, the amount remaining in the store was 413 bushels. The average price for flour obtained was £1 for 90 lbs., or about 3s. per peck.

Of bran 168 bushels remained in stock from 1887, and 918 bushels came in during the year, bringing the total amount to 1,086 bushels. Of this, 1,015 bushels were sold for £310, or an average price of 6s. 1d. per bushel, thus leaving 71 bushels in stock.

The amount of orange berry in hand was 7 bushels, and 30 bushels were obtained from the flour. Thirty-three bushels were sold for £8, or 4s. 10d. per bushel, thus leaving 4 bushels in stock at the end of 1888.

During 1888 some 22½ tons of coal were used in baking, the cost of this item being £38. There were 1,816 batches, for which

the average cost of coal was 5*d.* In hand there were 453 loaves of 3 lbs. each, and 187,177 were baked during 1888. The number sent out was 187,555, leaving 75 in stock. With regard to the 2 lb. loaves, 89,318 were made during the year, all of which were disposed of, the average price being somewhat under 2*d.* per lb. French yeast was employed in this department, at a total cost of £121.

The following were the purchases of meat in 1888:—

Article.	Weight in lbs.	Price.
406 live oxen	238,743	£3,216
286 live calves	30,581	1,522
Mutton	2,202	149
Mutton ragoût	4,536	185
Pork	925	40
	276,987	£11,112

The average price for meat being thus about 9½*d.* per lb. To the cost must be added £582 for salaries of agents, wages of workmen, fees for slaughtering, food of beasts and sundry expenses.

From the sale of skins, sirloins, lights and suet £3,289 was realised.

The 406 beasts referred to above, which weighed 238,743 lbs. standing, gave 132,029 lbs. of meat fit for consumption, or about 55 per cent. The other 286 beasts, weighing 30,581 lbs. standing, produced 19,867 lbs., or 64 per cent., of killed meat. The quantity of meat supplied to the institutions in 1888 was as follows: Beef, 115,615 lbs. weight; veal, 19,884 lbs.; mutton, 2,202 lbs.; pork, 925 lbs.; mutton ragoût, 4,536 lbs., making in all 143,162 lbs., at a cost of £8,405, the average price being about 1*s.* 2*d.* per pound.

In the clothes store there were goods remaining representing a sum of £1,795, and fresh goods were received worth £3,776, the whole value of the supply for 1888 being £5,571. On the other hand, £3,611 worth were disposed of during the year; so that the articles remaining represented a sum of £1,960.

With regard to drugs, the administration purchased 4,500 lbs. of linseed-oil cake, which were supplied at a price of 2*d.* per lb.; 3,492 lbs. were left in stock on December 31, 1887, so that the total supply for 1888 was 7,992 lbs. During the year, 4,860 lbs. were produced in meal and 162 lbs. represented the loss in grinding, so that 2,970 lbs. were left in the store at the end of 1888. 2,520 lbs. of linseed meal were supplied to the St. Pierre Hospital,

1,800 lbs. to St. Jean ; and 540 lbs. to the Infirmary. The value of stores in the chemist's department on December 31, 1887, was £1,580. The total deliveries from the central store represented £5,187, as follows: St. Jean, £2,655; St. Pierre, £1,910, and the Infirmary, £622. The three laboratories of the administration delivered 549,534 prescriptions in 1888, representing a value of £7,038, or a trifle over 3*d.* a prescription. This sum of £7,038 includes the salaries for the staff at the dispensaries, as well as the value of the materials, and articles purchased for the needs of the service. On December 31, 1888, the drugs in stock were worth £1,682.





CHAPTER X.

HOSPITAL SUNDAY AND SATURDAY FUNDS.

HISTORICAL.



It may be well at the outset to briefly trace the origin of the Hospital Sunday and Hospital Saturday Funds, which are now such popular movements all over England and Ireland as well as in the colonies. Taking them in the order named, that is, in the order of their establishment, we find that the Hospital Sunday Fund was undoubtedly made a practical fact mainly through the energy and great capacity for organisation possessed by a clergyman—the late Canon Miller, D.D., at that time of Birmingham. This statement has been contradicted over and over again, but its substantial accuracy is beyond question, as will be seen when the rival claims are considered on their merits.

In the first place, the treasurer of the Aberdeen Royal Infirmary claimed that Aberdeen was before Birmingham in this good work, "because the books of the Infirmary show that since 1784 the first Sunday in every year has been faithfully observed in that city, as a day bringing with it the duty and privilege of the congregations of all denominations publicly and simultaneously contributing to the funds of this charity." Unfortunately for this argument, Hospital Sunday has invariably been a collection to benefit, not one, but every, medical charity in each town wherein it has been established. This universal scheme of collection is a very different one from the Aberdeen sermons which have been preached for the county hospital there since the year 1784, as similar sermons have

been preached throughout the country for the county hospitals from a period long anterior to that date. The ordinary character of the Aberdeen collections is proved, moreover, by the statement that there are at least four other hospitals and dispensaries in Aberdeen, one of which was established in 1823, which do not benefit by the collections there. To this day, therefore, there has been no Hospital Sunday in Aberdeen as we southerners understand the meaning of that title. The ordinary hospital sermon for the county infirmary is indeed continued, to the exclusion of the more ennobling, because the more universal, collection known as Hospital Sunday. If Aberdeen can claim to have held the first Hospital Sunday in 1784, then many of the English county hospitals can declare with equal force that Hospital Sunday was founded in connection with their institution at least fifty years earlier.

Next, Manchester has put in a claim through an anonymous correspondent, who, in September 1880, wrote to the London papers to declare "it is not correct to state that the late Canon Miller was the founder of Hospital Sunday. What he did twenty-five years ago, when he was rector of Birmingham, was to start in that town what were then and are still called periodical collections for local charities. The Hospital Sunday was first established in Manchester in 1870, and was the work of a well-known gentleman, the Rev. John Henn, the rector of St. John's Church. The movement proving very successful, was at once copied by the Liverpool people, and afterwards by other towns throughout the country, the plan of our Hospital Sunday scheme, with slight variations, being in all cases adopted. In due course London followed suit at the suggestion of some gentlemen, who thought that what had proved so successful in Manchester and Liverpool, and elsewhere, might succeed there too." Now, the best reply which can be given to the Manchester claim is a letter dated July 19, 1875, which the Rev. John Henn addressed to the author of this book. The material part of it is as follows: "If you are thinking of starting a Hospital Sunday you cannot do better than consult Canon Miller, who began what he called 'periodical collections for local charities' in Birmingham, in 1858. It was on the model of this I started our Hospital Sunday Fund here, and all the rest of the Hospital Sundays are copies of ours." That is pretty conclusive, but we would add to it the fact that when Hospital Sunday—a name always popularly used in Birmingham to describe these collections—was first mooted in London, the then Mayor of Birmingham, Mr. Alderman Biggs,

brought us a letter from Sir Sydney Waterlow, asking him to obtain full particulars of the Hospital Sunday organisation in Birmingham, and that thereupon we collected the facts asked for, and Mr. Biggs forwarded them in due course to the Mansion House. Dr. Wakley, the editor of the *Lancet*, by repeatedly urging upon the Lord Mayor and the London clergy the duty of organising a Metropolitan Hospital Sunday Fund, originated the movement in London, and to him more than to anyone else is due the credit of having introduced Hospital Sunday to this metropolis.

The origin of Hospital Sunday is therefore narrowed to Birmingham. Now, a claim has been made by the *Midland Counties Herald* in favour of one of the greatest of modern philanthropists, Mr. Thomas Barber Wright, a former co-proprietor of that paper, who in February 1859, in a conversation with the Rev. C. B. Snapp, suggested that a congregational collection for the charities should be made in all places of worship in Birmingham town and district annually. Mr. Wright afterwards published an article in the *Herald* of October 13, 1859, in which this suggestion was again made. On the same day, October 13, 1859, Canon Miller wrote a letter to the *Birmingham Journal*, which he afterwards acknowledged he was moved to write by reading the article in the *Herald* suggesting that "every effort should be made to fix a given Sunday before Christmas, on which day, in every place of worship in the town, and suburbs too, collections should be made at every service for the hospitals." Now, Canon Miller at that time only thought of one collection in all the places of worship, on the same day, for one hospital, the Birmingham General Hospital. He estimated that "the product of the plates alone would amount to £1,000," but as a matter of fact they really realised £4,700, a result so gratifying that it caused the committee which organised the collection to recommend to a meeting of clergymen and ministers, held on December 14, 1859, "to appoint a committee to consider whether any, and what, plan could be devised for securing to the hospitals a more regular support by means of congregational collections, and to report as soon as possible." Mr. Wright, in an article which he wrote in the *Herald*, December 22, 1859, suggested that there should be simultaneous collections in the churches and chapels, the amount collected going one year to the General Hospital, as the largest and most important charity; the following year to the Queen's Hospital, as the next important; and the third year to the other local charities of a kindred nature, and so on in alternation. The Special

Committee brought up a report recommending the adoption of these suggestions, and Hospital Sunday has been held in Birmingham on this plan, in the month of October of every year, since that time. The Rev. Canon Miller was one of the honorary secretaries to the Hospital Sunday Fund from its commencement to the time of his leaving Birmingham for Greenwich, and to his whole-hearted devotion its success was largely due.

It is gratifying to add that the connection of the late Mr. Wright and of Canon Miller with Hospital Sunday has been appropriately commemorated by the erection of the Wright Cottage Hospital at Perry Barr near Birmingham; and by the establishment of the Miller Memorial Hospital at Greenwich, which was the first circular hospital erected in any part of the world.

It will thus be seen that the suggestion of an annual collection in all places of worship originated with Mr. Wright, but the foundation of Hospital Sunday was in reality due to the Rev. Canon Miller, who devoted much time and great ability to the elaboration and successful working of the movement which is now known as Hospital Sunday, and which has spread not only in this country, but to nearly every English-speaking population throughout the world. In fact, it is becoming as popular and successful in New York as in London, and the large Australian cities seem to show a greater enthusiasm and to collect relatively larger sums than those yet realised in American and British cities.

It is not so easy to trace the origin of Hospital Saturday, which is largely an outcome of the Hospital Sunday movement. It appears, however, that the first Hospital Saturday collection was held in Liverpool under the auspices of the Hospital Sunday Committee of that town in January 1871. In that year there was no Hospital Sunday Fund collection made at Manchester, doubtless owing to the fact that two collections of this character were made in 1870, one being in January and the other in December.

For our own part we believe that to Glasgow, and possibly to the Potteries, belongs the credit of having made Hospital Saturday practically possible, by establishing successful collections in the workshops, and by continuing them progressively, for twenty years at least prior to 1870. These towns thus proved that the working classes, if approached in a proper spirit, would contribute thousands of pounds in support of the hospitals. These efforts at self-help and independence, and the public attention which they attracted, caused a working-class movement to be inaugurated at Birmingham

in 1869 by Mr. Sampson Gamgee, F.R.S. Edin., with the object of providing funds to complete an additional wing, including an extensive out-patients' department, to the Queen's Hospital in that town. This movement resulted in the collection of £4,000 by the Working Men's Extension Fund Committee. When this Committee was dissolved, an Artisans' Medical Charities Fund was founded (with the object of aiding the hospitals), which ceased to exist in 1872. And soon afterwards, through the energy of Mr. Gamgee, a public meeting was held to promote a Saturday collection throughout the industrial establishments of Birmingham for the free benefit of its medical charities.

It will be seen, therefore, that if Liverpool originated Hospital Saturday to enable the Hospital Sunday Fund Committee to sweep into their net contributions from the working classes which would not otherwise have been obtained for the support of the hospitals, Manchester and Birmingham were speedily pursuing the same course, and that in the case of the latter town the contributions of the working classes had been attracted to the hospitals so early as 1869. So much for the historical side of this question.

WHAT THE TWO FUNDS HAVE ACCOMPLISHED.

We have next to consider what Hospital Saturday and Hospital Sunday have done for the medical charities of this country. First of all, these movements have undoubtedly attracted a greatly increased amount of public attention to the hospitals, and have by this means caused indirectly a considerable addition to the funds placed at the disposal of the managers of these charities, outside and beyond the actual collections made by these organisations.

It has been contended that the Hospital Sunday Fund has resulted in lessening the amount of annual subscriptions given to the hospitals, not in one place but throughout the country.

The latest exponent of the cry that Hospital Sunday is a gigantic failure is no less a personage than Canon Duckworth, who based his expressed opinion upon what he described as his long practical experience. He maintained from his experience in this matter that, however much Hospital Sunday may succeed in provincial towns, it has been, and threatens to remain, a great failure in London, and he contended that there was a very large class of the community who have a great dislike to putting their hands in their pockets, and are only too delighted to find any excuse not

to do so. With such people a contribution of a shilling or two on Hospital Sunday constitutes in their eyes a sufficient justification for a refusal on their part to subscribe, or even to give to any particular institution when its claims are forcibly brought under their notice. Knowing⁴ the contentions of Canon Duckworth to be erroneous, we addressed him more than once on the utterances referred to, but failed to get any explanation or even an acknowledgment. There is nothing more hurtful to the public interest than the utterance of wild statements without being prepared, when challenged, to produce the data upon which they are founded. Repeated applications to Canon Duckworth have failed to elicit any explanation or justification for his words, and we are therefore forced to conclude that what he uttered was uttered under total misapprehension, and without due inquiry as to facts. During a series of years it has been our habit to make most careful inquiries as to the relative failure or success of Hospital Sunday in London and elsewhere. We are bound in justice to state, as the result of these inquiries, that not only does Hospital Sunday not interfere with the ordinary income of the great Hospitals, which is derived from voluntary sources, but, on the contrary, its institution has tended to widen the interest in their welfare, and thereby to secure, directly and indirectly, larger contributions to their support. Anyone who will take the trouble to examine the lists of the subscribers to half a dozen of the principal hospitals in London will see that it is nothing but a gross libel to contend that Hospital Sunday has been harmful and not beneficial to the voluntary hospitals. The importance of this movement is proved by the knowledge that the same names appear over and over again in the reports of the various hospitals, so that a remarkably small portion of the inhabitants of each district ever contribute anything at all to their support. Indeed, some years ago, in one large town of upwards of 350,000 inhabitants, the lists of subscribers to all the charities (amounting in all to twenty-five) were carefully examined, with the result that, including every anonymous and other contribution, however small, which had been received by these charities, it was found that the whole of them were supported by 6,000 of the inhabitants, and that the remaining 344,000 people had not contributed, in any form that could be traced, one single penny to any local charity whatever. Further examination and experience have convinced us that this represents the almost universal condition of affairs.

We see, therefore, that until the establishment of Hospital

Sunday, thirty-nine out of every forty people contributed nothing or nearly nothing each year to the hospital exchequer, but since its institution it is to be hoped that those who are regular attendants at places of worship do make Hospital Sunday the opportunity of giving something, at any rate, towards the support and succour of the sick and afflicted. It must never be forgotten that, whereas Hospital Sunday contributes a substantial sum directly, the indirect contributions so collected in consequence of the widened interest excited in the work and welfare of these institutions have been incalculable—a fact proved by the large and steady increase which has taken place in the amount received by the London hospitals and also by provincial institutions from annual subscriptions during the last twenty years. We therefore challenge anybody who holds the contrary opinion to produce facts in support of it, and at any rate to have the candour, which Canon Duckworth seems to lack, when they have been led to make an unfounded statement, to show their *bona fides* by a frank admission of the fact.

The Rev. Dr. Haughton, Trinity College, Dublin, some few years ago gave important testimony, which exposes the hollowness of the contention that the Hospital Sunday movement has injured the hospitals. Dr. Haughton stated that when the Hospital Sunday Fund was started in Dublin he at first hesitated to join in it. As they had a regular *clientèle* and churches where they could always get a charity sermon preached, he thought they would be running a risk by combining with other hospitals; but he found the timid party were wrong, as the individual subscribers had largely increased, and, over and above that, there was £4,000 a year to be divided, coming from sources never before reached. A judicious and wise distribution of the fund, and the creation by its establishment of a public interest in hospitals, had done more than anything else to reform and improve hospitals in Dublin.

So much for the origin of, and for what has been accomplished by, the Hospital Sunday and Hospital Saturday organisations to the present time.

HOW THE FUNDS CAN BE MADE MORE USEFUL TO THE HOSPITALS.

It now remains to consider how far the Hospital Sunday and Hospital Saturday Funds can be made more useful to the hospitals. It will be desirable to state the points which arise, and to consider

them briefly in detail as we proceed. The following, then, are some of the ways in which these organisations can be made more useful to the hospitals :—

I. It is desirable that the Hospital Sunday and Hospital Saturday movements in each town shall be under the control and management of the same committee or organisation.

This is a cardinal point, and needs little to be said in support of it. It is evident that two organisations mean two secretaries, two sets of offices, two printing and advertising bills—in fact, the duplication of every item of expenditure from first to last. In other words, the sums subscribed by the people are needlessly wasted by the duplication of the methods of collection, which makes the cost materially greater than it would otherwise be. For example : Liverpool raises over £11,000, the contributions to the Hospital Sunday Fund being about £7,000 and those to the Hospital Saturday Fund about £4,000, at a cost of something like £420—being about $3\frac{3}{4}$ per cent. on the sum raised. The Hospital Saturday Fund in London in 1890 raised £20,333, at a cost of £2,961, being rather more than 14 per cent. on the total sum collected, and the expenses would probably be increased in the latter case to 19 per cent. if the whole sum expended were to be included, seeing that for some reason the extra estimated outlay on the penny-a-week movement has been excluded from the expenditure published in the report.

We here get the cost of collection increased by an amount equal to from 300 to 500 per cent. by the adoption of the separate system. We would, therefore, urge once again, in the interests of both funds as well as in that of the hospitals, that the Hospital Saturday and Hospital Sunday organisations in London should be united. The fact that, owing to circumstances which we need not now mention, such a proposal was rejected by the earlier promoters of Hospital Saturday in London, when a resolution in favour of the consideration of this scheme was adopted at a meeting held at the Mansion House in 1874, is no argument against this suggestion.

Union secures that the enthusiasm engendered by one movement shall influence and help the other. By fixing the Hospital Saturday and Hospital Sunday collections on consecutive days, there can be no doubt that an honest rivalry is often created which results in increased collections, increased enthusiasm, and increased efficiency, whilst causing a great reduction in the expenditure.

Union renders it possible for many much-needed reforms to be urged upon the hospitals with redoubled force and consequent success, because it gives a weight to all recommendations emanating from the combined organisations which separately they would not possess. Union means the selection of the best and most representative men in each town for seats upon the Council of the combined movement, by increasing the honour of the selection, and making the post one which is likely to be sought by the most active and representative members of the community amongst the different classes which must necessarily find representation on such a Council. This representation of every interest and every class of supporter, from the highest to the lowest, would render the adoption by the hospital authorities of the proposals which are made by such a Council almost a matter of course. The Hospital Sunday Fund Council, from its necessarily representing very many classes of hospital supporters, will usually secure the adoption of its recommendations without difficulty. The representatives of the Hospital Saturday collection would not, however, be likely to accomplish the same result, because they would not be entitled to the same attention or carry anything like the same weight with the Hospital Committees. In this connection must also be considered the confusion and trouble arising from two separate organisations in each town, two separate returns made on different forms and in a different way by every hospital each year, and the selection of two separate and distinct kinds of requirements; because what the Committee of the Hospital Sunday Fund may think desirable or unnecessary, the Council of the Hospital Saturday Fund may think undesirable or necessary, and *vice versa*. Thus the Hospital Committees, especially where the grants made by the smaller organisation, which is at present the Hospital Saturday Fund, are comparatively insignificant, will stand out against proposals made by such a body as ill advised, or ill considered, or unimportant, or at any rate as of such a character that they may without injury to their finances decline to accept them.

Again, union means increased care in distribution, in expenditure, and in the making of requests to the hospital authorities, whilst it tends to prevent any attempt to use the Hospital Saturday and Sunday organisations as a means of securing patronage for the individual—a proceeding which must always be highly objectionable. Finally, union results in the working classes securing direct representation in the governing bodies of the

hospitals through the workshops which contribute, rather than through the central organisation which controls, the collections.

For all these, and several other reasons, it cannot be doubted that, as a rule, it is highly desirable that the Hospital Sunday and Hospital Saturday Funds should be controlled and managed by one committee or council, and that they should not constitute separate undertakings in each town.

RESULTS TO BE ACCOMPLISHED.

II. Assuming, then, that the Hospital Sunday and Hospital Saturday Funds are united, or, at any rate, that the Hospital Sunday Fund will be by far the more representative and important body, and that it will therefore be able to get a more favourable consideration for its proposals at the hands of the Hospital Committees, we recommend, as the result of many years' experience, that each Council should aim at accomplishing the following results :—

First : To make every grant to each charity conditional upon the books of that charity being kept upon a method which has been laid down by the Hospital Sunday and Saturday organisations, with the object of securing uniformity of account-keeping in all institutions which receive money from these organisations.

The object of this proposal must be manifest. At the present time it is well-nigh impossible to make any convincing comparison between one hospital and another, or between one dispensary and another, for the reason that there is little uniformity in the book-keeping. No one can be certain that the comparison has been made accurate by the inclusion of the same items under each separate head, and that they include in every instance the same figures only. At present in some hospitals it is impossible to disconnect the cost of provisions from the dispensary and drug expenses, or to ascertain what is the cost of management as opposed to that of maintenance, and *vice versa* ; and in very few hospitals indeed is it possible to form more than an idea of the relative cost of each in-patient and of each out-patient, because the expenses of the in-patient and out-patient departments are so merged as to make the one indistinguishable from the other. Bad book-keeping means very often muddle in the management, and such a condition of affairs necessarily causes extravagant expenditure. It is, therefore, unanimously admitted that at the present

time a uniform system of keeping accounts is essential to the economical maintenance of these institutions. This is a matter which has for some time been under consideration by the Metropolitan Hospital Sunday Fund, with the result that this year a form of account has been drawn up and submitted to a committee appointed by a meeting of Hospital Secretaries held in March. This form (see end of present volume) has been approved by the Council of the Hospital Sunday Fund, and adopted by the hospitals.

Secondly : To give no grant to any institution, in any year, unless and until a representative or representatives of the Council have inspected the buildings and premises, and reported upon the management.

We are induced to urge this very strongly indeed upon the Councils of the Funds, in London especially. London is a vast city : it differs from every other town in the fact that it is metropolitan and not local, that its extended area renders it well-nigh, if not quite, impossible for any person, however determined, to ascertain the facts about any group of institutions or charities situated within its area, without making a personal inspection and conducting a private inquiry on the spot.

FREE GIFTS THE MAINSPRING OF BOTH FUNDS.

Thirdly : The aim of the Council of each Hospital Sunday and Saturday organisation should be to present as large a free gift as possible to the hospitals. In no case should the tickets or recommendations received from hospitals by these Funds exceed half the number which may be claimed by annual subscribers, whose contributions in the aggregate would represent a sum equal to the award made out of the Hospital Saturday or Sunday Fund to the respective hospital or dispensary.

We regard the views held by any gentleman upon this proposition as proving his fitness or otherwise for a seat on the Council of one of these organisations. Any person who contends, as it has been contended with much warmth, that it is the privilege and the undoubted right of any organisation, although its primary object avowedly is to assist the medical charities by the collection of additional income, to demand in return for the money given to each hospital by the central collecting agency the same number of letters in exchange for such a grant as the ordinary subscriber is

entitled to for a like contribution, proves beyond dispute by such a demand that he is no friend of the hospitals, but, on the contrary, that he is ignorant of the true principles of charity and anxious to use the Council as a means of securing patronage by the dispensation of money which has been entrusted to it for distribution as a free gift, or, at any rate, as an expression of gratitude, and which it is a breach of trust to use as a lever for the extraction of exorbitant privileges, and of an exact *quid pro quo* for every penny distributed to the participating charities. Such demands on behalf of a central council, which has acted merely as the collecting agency of other people's alms, converts what the donors intend to be true charity into an act of barter. For our own part, we have always maintained that it is better for a hospital to refuse altogether rather than to accept a grant of money when it is hampered with conditions which are unreasonable, and even commercially unprofitable, in addition to being contrary to the true spirit of charity.

A consideration of this point brings out the immense difference between the sums subscribed by the working classes to hospitals in London on the *quid pro quo* system, and in the provinces on the free system, through the Hospital Saturday movement. The artisan classes in the provinces contribute nearly £60,000 a year to hospitals, as against £20,000 subscribed in London.

Every hospital committee may usefully encourage the working classes to subscribe direct through their workshops, and to qualify their representatives as governors of the hospitals. From these subscribing governors representatives may then properly and usefully be selected to serve upon the governing body.

It is certainly not to the interest of the hospitals, nor yet of the working classes, that money given to a central organisation should be utilised by the managers, who themselves very frequently subscribe little or nothing to the fund, to purchase privileges and governorships at medical institutions, as they do not represent in any real sense the contributors of the funds so collected for the hospitals.

The attempt made by certain ardent spirits to procure seats on the committees of management of the medical charities through the Hospital Saturday Fund organisation should be discouraged upon every ground of principle and morality. Of principle, because it disheartens the contributors, and deprives them as individuals of their legitimate rights as subscribers to hospitals ;

of morality, because it is wrong to utilise funds freely given for the free relief of the poor, to enable particular persons to secure positions of honour and responsibility on an improper basis. We would counsel the working classes and the hospital authorities everywhere to set their faces like a rock against such an attempt by any central organisation. Every Hospital Saturday Council, to be successful, should rest content when it has secured the largest possible collection for the hospitals at the smallest expenditure, and has distributed the money as a free gift on the best possible principle, having regard to efficient work done and its results. In commending the facts and figures here dealt with to the attention of all who are interested in hospitals, and especially to those whom they chiefly concern, our experience tells us that they will be weighed on their merits, and if so, an alteration in the directions indicated should not be long in coming.

In London the new departure taken two years ago by the Council of the Saturday Fund resulted in raising the income from workmen's subscriptions to £15,237 in 1890 as compared with £9,283 in 1889, and an average of less than £7,000 a year for the previous five years.

Welcoming, as we do, the additional sums which the penny-a-week movement has brought in from legitimate sources to the Fund, we are still of opinion that, until the system of distribution is altered and a free gift is made to the hospitals, not only the receipts, but the cost of collection, must remain in an unsatisfactory state, compared with the results achieved in other large towns, and especially in Birmingham. We are not without hope, however, that wiser counsels will prevail in London, with the result that a better system will speedily be substituted for that now in force in the metropolis.

Let us now contrast the results which have been obtained in London from the *quid pro quo* system, with those of Birmingham, where all the money collected through the Hospital Saturday Fund is now offered as a free gift to the medical charities. Hospital Saturday, as we have said above, was established in Birmingham in 1873, a year earlier than in London. The yield in the first year amounted to £4,700. The amount collected gradually decreased until 1878, when it reached its lowest point—£2,900, the net amount available for division. Great efforts were then made to develop the Fund, and the sums received steadily increased year by year

until in 1890 the amount divided amongst the medical charities was £9,400. Ten thousand pounds was the ideal sum which the Council set itself to raise, and in 1891 no less than £10,868 was received, of which £10,300 was divided amongst the charities. The expenses of collection amounted to 'only £446, or about 4 per cent. of the sum raised. In 1890 the other large towns collected through the Hospital Saturday Fund the following sums: London, £20,000 (nearly); Leeds, £5,262, at a cost of £313; Liverpool, £4,074, at a cost of £334; Sunderland, £4,143, free of cost; Manchester, £3,715, at a cost of £250; Wolverhampton, £3,042, at a cost of £65. No other town collected so much as £3,000.

Birmingham men are proud of the position which their town occupies in this movement, and they have determined to make a new and important departure. It is held by the managers that £10,000 fairly represents the requirements of the case, so far as the working classes are concerned. They have ascertained that, while the Hospital Saturday Collection advances, private subscriptions to the hospitals do not increase. There is, therefore, a danger lest the free contributions of the workpeople should supply the deficiencies of the richer classes, and so the Hospital Saturday Fund may gradually become, to a much greater extent than is at all desirable, a relief fund enabling the middle and upper classes to diminish their subscriptions. If the Council lessened their efforts, having regard to the fact that as many as two hundred and forty-three contributing firms made no contribution during the year 1891 (though two hundred and thirty-one new firms sent contributions), there is a danger that the Fund would not reach £10,000, and it is, therefore, thought to be desirable that some visible and permanent result of the Fund should be secured. With this view, a new scheme, prepared by the able secretary, Mr. Smedley, has been adopted which provides for the purchase of a site, the erection of a building, and the provision of furniture for a convalescent home, at a cost of £10,000. It was proposed to raise the money, in the first instance, by the issue of debentures of £100 each, bearing interest at 4 per cent, which were to be liquidated in twenty-one years, by a sinking fund. Two ladies, however, the Misses Stokes, rendered this step unnecessary by handing over a cheque for £7,500 as a memorial to their late brother, Mr. Alfred Stokes, and a convalescent home has been organised at Llanrwst, near Llandudno.

LEGACIES AND HOSPITAL SUNDAY FUNDS.

Fourthly: The Hospital Sunday Fund organisation should accept the responsibility to distribute in right proportion the legacies of those members of the community who have no knowledge of hospitals, but who desire to benefit by will the best managed of these institutions.

This proposition is made from the knowledge that the majority of people understand very little about hospitals and their management, and that they are often placed in a difficulty when they wish to give something by will towards the support of these institutions. A considerable number of bequests have been left to the discretion of executors. This method frequently results, not in a wiser distribution, but in merely shifting the difficulty of distribution from one pair of shoulders to another. We know, as a matter of fact, that a sum of nearly £200,000 was once distributed amongst hospitals by executors so situated, who, knowing nothing of the respective merits of individual charities, decided that they would make the maximum grant to any charity £2,000, the minimum £250, and two intermediate grants of £500 and £1,000 respectively. Having arranged this as a basis for distribution, they took one of the charity guides and read out the account given therein of each of the hospitals in alphabetical order, deciding by open voting which of the four sums each should receive. Having a balance left when the guide-book was exhausted, they voted the balance to the largest hospital of all. This was a rather haphazard way of proceeding, but an examination of the results arrived at showed that on the whole the distribution had been made fairly well, although it would, no doubt, have been juster and better to have given much larger sums to some hospitals and no money whatever to others. This circumstance shows that it would be a great boon to very many wealthy and philanthropic people, and sometimes to their executors, if the Councils of the Hospital Sunday Funds would undertake, out of what ought to be their fullness of knowledge, to distribute justly any legacies which might be entrusted to them at discretion.

FREE SURGICAL AID AND APPLIANCES.

Fifthly: A scheme should be prepared and developed by each Hospital Sunday Fund Council, by which it would be possible for the hospitals to secure for the patients who are treated within their

walls every kind of surgical appliances without delay or difficulty to the patients.

We have always been in favour of the plan which the Council of the Metropolitan Hospital Sunday Fund has formulated, by which letters of recommendation for patients requiring surgical appliances are brought within the reach of every poor person who requires them without delay. Very many hospital surgeons are often placed in a great difficulty, when, after the removal of a limb, the patient has made a good recovery and ought to be discharged from the hospital. This difficulty arises from the desire to provide an artificial or some essential surgical appliance to complete the cure, and which is needed to replace that which has been removed by the surgeon's knife. To send a poor man out of the hospital without such an appliance is often to place him and his family in great distress, and to cause permanent injury to the health of the bread-winner.

It is impossible for the convalescent to resume his occupation unless or until he can secure an artificial limb or other appliance, without which he cannot hope to procure work. Long residence in a hospital, and the slow recovery made from a serious injury or operation, are not exactly calculated to produce a vigorous physique, and the stage of convalescence—that period when disease has ceased and health has to be restored—is the very one of all others when rest and nourishing diet are essential to complete recovery. To compel a convalescent to go back to his family, who have probably been already reduced to the verge of starvation by the loss of his wages, and to tell him that he must at once set to work to canvass a number of subscribers situated in different parts of a great city, in order to secure ten or twenty notes to enable him to induce the committee of a so-called charity to supply him with a surgical appliance, which will alone render it possible for him to resume work, is, in our opinion, an act so inhuman that we do not care to characterise it as it deserves.

The ticket system has produced many abuses in connection with hospitals, but they are all trivial compared with the abuses engendered by a system which insists upon the distribution of surgical appliances only in exchange for numerous letters collected at the risk of the poor man's health. The Hospital Sunday Fund Council, as the representative of the ministers of all denominations, has wisely recognised the inhumanity of this system by setting aside a sum, not exceeding 5 per cent. of the gross receipts,

for the purchase of surgical appliances, in order to place them within the reach of the suffering and deserving poor, without difficulty, delay, or danger to health.

We hope that the excellent plan of the Metropolitan Hospital Sunday Council will be followed by every similar organisation throughout the world.

THE COST OF COLLECTION REDUCED TO A MINIMUM.

Sixthly : The Hospital Sunday and Hospital Saturday organisations should set an example to the managers of all charities by reducing the cost of collection to the lowest possible minimum.

This fact has been recognised very generally, and economy of expenditure, due mainly to the voluntary and self-denying efforts of the citizens who have conducted these collections, affords a gratifying proof of the excellent spirit which has animated all who have been responsible for the management of the Hospital Sunday and Saturday Funds.

A MODEL SCHEME OF MEDICAL RELIEF.

It will thus be seen that many schemes have been proposed with a view of ascertaining to what extent it may be possible to awaken and secure more adequate support for the hospitals from the workshops. Two plans of securing this support have been adopted in the provinces. In Birmingham the plan is to levy a subscription of so much a week upon each of the employés in all the workshops co-operating with the Hospital Saturday Fund. Out of this money, subscriptions are paid to the various hospitals in proportion to the amount of relief required by the subscribing employés, workmen, or artisans, their wives, and families; and on the eve of Hospital Saturday in each year all the money which the box then contains is sent as a free gift to the Central Fund. In the Potteries they have another system, which is well worthy of general consideration. All the works are in direct communication with the North Staffordshire Infirmary, and a system has been organised by which the Infirmary authorities issue to each workshop books containing letters of introduction, which the foremen fill in, as occasion may require, in favour of any of the employés or their families who may be ill. In this way the hospital is left free to give such relief, and such only, as each case may require, and both the hospitals and the workshops are enabled to ascertain the amount and the cost of the relief given to the artisans in each year. This measure of work done stimulates the contributions from the

workpeople, who believe in a *quid pro quo*. It further gives them an opportunity of making a free gift to the hospital, the amount of which at the North Staffordshire Infirmary reaches £500 per annum. At Birmingham, the working classes give £10,000 through the Hospital Saturday Fund, though they cannot claim the whole of this money as a free gift, seeing that no means have yet been adopted of ascertaining how many artisans go to the hospitals without tickets, and whether or not the contention of some of the medical staff is correct, that the Birmingham hospitals expend annually on the working classes much more than the whole £17,000 which they at present subscribe. If tickets were abolished and letters of introduction substituted, a little co-operation between workshops and hospitals would enable the precise facts to be arrived at. For this reason we prefer the scheme in force in the Potteries.

An attempt should be made to induce every workshop to establish a box, and to put into it a weekly subscription from each of the employés, together with an adequate contribution from the masters. The money so obtained to be used, in the first instance, to pay the fees of the local medical practitioner, to whom the workman or his family would be first referred by the foreman, and who would attend them in all ordinary illnesses. If it was necessary for a case to go to a hospital, because it required nursing and other advantages not obtainable at the patient's home, then a letter of introduction would be sent to the hospital with the patient from the workshop, which would secure the necessary further treatment there. Thus the interests of the artisans, the hospitals, and the general practitioners of medicine would be alike protected. The workshops would keep an account of the number of cases sent with letters, the hospitals would keep an account of the cost of treating the cases, and it would then be possible to see exactly what proportion the moneys contributed by the workshops bore to the relief given to the workmen by the hospitals. The working man is strong in his right to obtain from the hospitals what he requires when ill for an adequate payment; and such a system as this would enable those who are willing to pay for medical relief to see that their less thrifty fellows who declined to contribute to the boxes did not obtain free relief without their being aware of it.

Further, the hospitals should co-operate with the Hospital Saturday authorities in the districts which they each specially serve, and in this way it is believed that every workshop might easily be induced to join such a general organisation for the protection and benefit of the working classes. On the day fixed for Hospital Saturday in

each year the boxes would be opened, and their contents sent to the Saturday office as a free gift from the workshops. The total thus collected would be distributed without privileges or tickets amongst the various hospitals by the Council, after setting aside a certain percentage to defray the cost of supplying medical and surgical appliances to those of the contributors who might need them. Each workshop would be further able to arrange with the various hospitals for direct representation by virtue of their contributions, although such contributions were in reality payment for relief afforded, because it would be reasonable for the institutions to give certain privileges to the artisans as a sort of bonus on their efforts to pay the cost of their treatment when ill. This scheme might be modified in certain circumstances by inducing all the workshops to send their contributions intact to the Hospital Saturday office, and to leave the authorities there to make arrangements with the hospitals, by which accurate accounts may be kept of the number of patients sent, the cost of such patients, and the contributions given towards defraying this expenditure in the aggregate. In other words, the Hospital Saturday collections would then be divided into two parts: one part would represent the money sent to the hospitals to defray the cost of the cases which were admitted to treatment through the Hospital Saturday Fund, and the other part would be the balance contributed beyond this outlay, which would constitute the free gift of the working men each year.

It is most desirable, having regard especially to the enormous increase in the growth of the out-patient department, that steps should be taken to regulate the admissions, and to secure that as far as possible those patients who can afford to do so shall contribute towards the cost of their treatment. For these reasons we venture to commend these proposals very cordially to the consideration of the hospital authorities, and we hope very many of them will put themselves in communication with the Hospital Saturday Fund councils with a view to the early adoption of this practical scheme. Its great merit is, that by giving the institutions, the Hospital Saturday Fund authorities, and the individual workshops an accurate knowledge of the actual cost of treating the artisan patients, it will be possible to stimulate the working classes to exert themselves sufficiently to secure that their contributions shall bear something like an adequate proportion to the advantages they at present receive from the hospitals, which, it must always be

remembered, were founded originally for the relief of those patients, and those only, who are unable when ill to pay for adequate medical treatment.

METHODS OF RAISING FUNDS.

We now come to the methods of raising income pursued by these two funds, and the amounts they raise respectively in the large towns of Great Britain.

HOSPITAL SUNDAY collections are either (1) made on Hospital Sunday in a given district on behalf of the hospitals and dispensaries, and the whole amount is distributed without any deduction for expenses, in which case the Hospital Committees manage the Hospital Sunday collection ; or (2) a Special Committee, representative of all the contributing congregations, has been organised for the management of Hospital Sunday, which receives all sums contributed by the various congregations, and, after the deduction of the necessary expenses, distributes the balance amongst the various institutions in such proportions as each central committee considers fair and just. Under the first system the expenses are practically *nil*, and in the second instance they have never been known to exceed, we believe, 5 per cent. of the sum raised, and are generally much less. The first system is suitable for smaller communities which are served mainly if not entirely by one institution, and the latter is met with in the larger towns, where many institutions exist for the relief of the sick in all its various phases. For some reason not readily understood, the Hospital Sunday movement does not seem to extend to Scotland, although collections are made in certain places of worship in Aberdeen and elsewhere at the discretion of the various clergymen and ministers of religion, who help, without any combined effort, to secure the adoption of one particular Sunday to be set apart for this special purpose. No doubt the appointment of one Sunday in each year on which collections are made in all places of worship for the benefit of the hospital has tended to enlist an amount of sympathy and support which would otherwise be wanting. If this plan, which originated in Birmingham, were universally adopted, the sums collected on Hospital Sunday would probably be fifty per cent. higher than they are at present.

The tables given on the two following pages contain particulars of the Hospital Sunday collections throughout the country in certain towns in Great Britain having twenty-five thousand inhabitants and upwards.

HOSPITAL SUNDAY COLLECTIONS.

Table showing amount collected by Hospital Sunday Funds in certain towns of Great Britain of 25,000 inhabitants and upwards, with the expenses of collection for the years 1888 to 1890.

Name of Town.	1888.			1889.			1890.			Secretary.
	Total Sum Collected.	Working Expenses.	Amount added to various Charities.	Total Sum Collected.	Working Expenses.	Amount added to various Charities.	Total Sum Collected.	Working Expenses.	Amount added to various Charities.	
London ..	£ s. d. 40,379 9 6	£ s. d. 1,272 17 5	£ s. d. 39,408 17 6	£ s. d. 41,744 12 11	£ s. d. 1,478 7 11	£ s. d. 40,749 10 3	£ s. d. 42,814 16 9	£ s. d. 1,544 2 9	£ s. d. 40,968 8 6	H. N. Cusance, Queen Victoria Street, E.C.
Barrow-in-Furness ..	30 11 6	Nil	30 11 6	46 17 7	Nil	46 17 7	44 6 3	Nil	44 6 3	Henry Cook, North Lonsdale Hospital.
Birmingham ..	4,455 8 8	252 6 4	4,203 2 4	5,166 15 5	237 1 2	4,929 14 3	4,712 3 2	219 16 11	4,492 6 3	W. Fisher, Hon. Sec.
Blackburn ..	328 10 6	Nil	428 10 6	427 18 2	Nil	427 18 2	397 5 11	25 0 0	372 9 7	W. Eastwood, Blackburn Inf.
Bolton ..	332 2 7	Nil	332 2 7	332 18 2	Nil	332 18 2	318 14 1	Nil	318 14 1	J. J. Briscoe, Bolton Infirmary.
Burton-upon-Trent ..	332 2 7	Nil	332 2 7	332 3 8	Nil	332 3 8	318 14 1	Nil	318 14 1	J. C. Grinling, General Inf.
Bury ..	285 6 4	Nil	285 6 4	305 14 8	Nil	305 14 8	312 10 1	Nil	312 10 1	H. Webb, Bury Disp. Hosp.
Cambridge ..	1,137 17 2	Nil	1,137 17 2	1,031 2 2	Nil	1,031 2 2	1,161 18 8	Nil	1,161 18 8	J. Bonnett, 23 St. Andrews Street (Addenbrooke's Hospital).
Cardiff ..	1,309 4 9	40 15 9	1,272 5 5	1,338 11 4	40 8 0	1,334 5 7	768 0 1	41 8 9	755 0 0	H. Scott, Hon. Sec.
Cheltenham ..	435 9 2	Nil	435 9 2	489 3 7	Nil	489 3 7	494 6 0	Nil	494 6 0	J. W. Wansley, Cheltenham Inf.
Colchester ..	406 0 3	29 0 0	375 0 3	414 10 10	31 0 0	383 10 10	431 15 8	20 4 3	411 11 5	C. E. Bland, Essex and Colchester Infirmary.
Covey ..	260 18 1	Nil	260 18 1	235 7 7	Nil	225 7 7	250 18 4	Nil	250 18 4	A. Seymour, Coventry and Warwick Hospital.
Darlington ..	91 17 6	Nil	91 17 6	72 6 7	Nil	72 6 7	54 0 4	Nil	54 0 4	H. F. Pease, M.P., and R. L. Pratt, Hon. Secs.
Derby ..	557 2 11	12 4 0	544 18 11	593 13 4	13 9 0	580 4 4	655 7 11	13 0 0	641 18 4	W. Hobson, Market Place.
Dover ..	260 3 6	Nil	260 3 6	289 17 10	Nil	289 17 10	258 17 11	Nil	258 17 11	Edward Elwin, Dover Hospital.
Devonport ..	203 18 4	2 5 4	201 13 0	181 8 9	2 5 9	179 3 0	198 9 3	2 5 3	196 4 0	C. A. Shapcote, Royal Albert Hospital.
Dublin ..	4,096 10 3	255 5 4	3,970 0 0	4,155 5 4	260 0 5	3,950 0 0	4,888 11 11	273 3 3	3,900 0 0	F. L. Long, 23 William Street.
Exeter ..	834 5 5	Nil	834 5 5	809 2 8	Nil	809 2 8	800 18 8	Nil	800 18 8	G. A. Townsend, Devon and Exeter Hospital.
Huddersfield ..	790 8 11	10 8 11	780 0 0	753 9 6	10 9 6	743 0 0	877 4 9	10 4 9	867 0 0	J. Bate, Huddersfield Infirmary.
Hull ..	603 14 3	30 9 1	573 5 2	639 2 6	29 6 8	609 15 10	624 14 11	30 19 1	593 0 0	Rev. J. Mallet-Lamert, Rev. J. Bell, T. J. Smith, Hon. Secs.
Ipswich ..	716 2 5	Nil	716 2 5	692 2 0	Nil	692 2 0	681 15 7	Nil	681 15 7	T. E. Mayhew, E. Suffolk and Ipswich Hospital.
Leicester ..	347 7 3	Nil	347 7 3	1,369 7 1	Nil	1,369 7 1	1,461 3 2	Nil	1,461 3 2	T. A. Wykes, 24 Friar Lane (General Infirmary).
Lincoln ..	1,048 2 0	Nil	1,048 2 0	1,057 18 8	Nil	1,057 18 8	1,095 12 7	Nil	1,095 12 7	W. B. Dwyer, Hon. Sec.
Liverpool ..	6,348 12 6	87 0 6	6,501 4 7	6,888 6 4	89 18 6	6,867 17 0	7,003 18 6	91 5 6	6,916 12 0	Rev. T. B. Banner, J. Watson, Hon. Secs.
Macclesfield ..	202 0 0	2 0 0	200 0 0	166 7 5	2 1 0	164 6 5	149 0 8	3 3 0	145 17 8	G. H. Corbishley, Macclesfield General Infirmary.
Manchester and Salford ..	7,991 17 11	501 1 7	7,495 7 4	8,173 2 4	521 11 2	7,487 17 5	8,275 5 10	552 2 7	7,881 19 6	Rev. John Henn, Heaton Chapel Rectory, Stockport.

† Hospital Sunday and Saturday Funds worked by same Committee.

• Secretary or Hon. Secretary of Hospital.

HOSPITAL SUNDAY COLLECTIONS.

Table showing amount collected by Hospital Sunday Funds in certain towns of Great Britain of 25,000 inhabitants and upwards, with the expenses of collection for the years 1888 to 1890—continued.

Name of Town	1888.			1889.			1890.			Secretary.
	Total Sum Collected.	Working Expenses.	Amount paid to various Charities.	Total Sum Collected.	Working Expenses.	Amount paid to various Charities.	Total Sum Collected.	Working Expenses.	Amount paid to various Charities.	
Merthyr Tydfil ..	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Mr. R. Davies, Merthyr General Hospital.
Middlesbrough ..	152 4 10	4 0 10	148 4 0	117 11 3	5 2 6	112 9 9	133 16 2	5 4 8	128 11 6	Angus Macpherson, R. T. Mill.
Newcastle † ..	3,917 12 0	287 14 1	3,649 17 9	4,508 12 6	294 7 5	4,276 0 0	4,628 15 0	421 13 9	4,029 15 4	R. H. Holmes, to Royal Arcade.
Newport (Mon.) ..	162 2 6	Nil	162 2 6	219 2 9	Nil	219 2 9	216 0 8	Nil	216 0 8	W. K. Stone, Newport Infirmary.
Norwich ..	652 8 0	32 10 0	619 18 0	576 14 9	33 6 9	543 9 4	1,028 10 10	60 10 4	588 0 0	W. H. Jones, Norfolk Chronicle.
Nottingham ..	1,118 17 7	36 5 3	1,082 12 4	1,224 10 0	42 6 9	1,182 3 3	1,028 10 10	43 17 3	984 13 7	E. M. Keeley, Nottingham Gen. Hospital.
Oxford ..	1,052 5 5	30 7 1	1,021 18 4	1,077 16 8	29 16 8	1,048 0 0	1,184 14 1	29 10 5	1,154 14 8	A. C. Virgo.
Plymouth ..	824 7 5	Nil	824 7 5	844 1 0	43 11 0	800 10 0	885 2 6	49 2 10	835 19 8	J. W. Wilson, E. A. Bennett, Hon. Secs.
Portsmouth ..	569 15 1	Nil	569 15 1	619 11 7	Nil	619 11 7	664 6 11	6 0 3	658 6 8	J. A. Byerley, Royal Hospital.
Preston ..	545 0 0	8 0 0	537 0 0	552 0 0	8 0 0	544 0 0	494 1 11	Nil	494 1 11	R. A. Basset, Preston Infirmary.
Reading ..	235 12 3	Nil	235 12 3	210 1 6	Nil	210 1 6	217 16 4	Nil	217 16 4	T. Hugo, Royal Berks Hosp.
Rochdale ..	125 0 0	Nil	125 0 0	152 9 8	Nil	152 9 8	151 0 9	Nil	151 0 9	H. Booth, 58a Yorkshire Street (Rochdale Infirmary).
Rochester ..	367 8 9	Nil	367 8 9	320 2 10	Nil	320 2 10	331 8 2	Nil	331 8 2	F. L. Harrop, Rotherham Hosp.
Rotherham ..	234 2 7	Nil	234 2 7	246 12 3	Nil	246 12 3	204 2 3	Nil	204 2 3	J. J. Hamill, St. Helens Cottage Hospital.
St. Helens ..	137 13 1	Nil	137 13 1	95 5 5	Nil	95 5 5	69 16 0	Nil	69 16 0	George H. Day, Sheffield Gen. Hospital.
Sheffield ..	2,020 1 3	20 13 3	1,999 8 0	2,174 10 9	20 10 5	2,154 0 4	2,046 2 0	20 10 4	2,025 11 8	V. C. L. Crump.
Shrewsbury ..	227 6 11	2 7 7	225 0 0	211 13 10	3 1 3	210 9 0	213 4 6	2 14 8	210 0 0	A. J. Dyer, to Bernard Street.
Southampton ..	895 8 2	55 15 0	839 13 2	1,108 1 10	6 10 10	1,097 12 0	1,187 8 3	55 15 9	1,127 11 6	J. Worral, Southampton Infirmary.
Southport ..	489 6 6	Nil	489 6 6	473 1 9	Nil	473 1 9	517 8 5	Nil	517 8 5	Li.-Col. S. W. Wilkinson, Hon. Sec.
Stockport ..	375 8 11	Nil	375 8 11	320 19 0	Nil	320 19 0	311 13 10	Nil	311 13 10	Thomas Robinson, 38 Fawcett Street (Sunderland Infirmary).
Sunderland ..	714 9 3	Nil	714 9 3	765 5 4	Nil	765 5 4	788 10 4	Nil	788 10 4	J. W. Morris, General Hospital.
Swansea ..	226 17 8	Nil	226 17 8	220 12 1	Nil	220 12 1	241 19 1	Nil	241 19 1	H. T. Paine, Forsey General Hospital.
Turkey ..	291 18 5	Nil	291 18 5	224 13 2	Nil	224 13 2	294 1 7	Nil	294 1 7	Revs. E. M. Fitzgerald and T. Hurdley.
Walsall ..	211 16 0	4 0 0	207 16 0	210 17 9	4 0 0	206 17 9	236 5 2	9 5 2	225 0 0	F. W. Monks, Lovely Lane.
Warrington ..	105 3 11	6 0 0	109 3 11	211 1 2	6 0 0	205 1 2	225 13 4	8 0 0	217 13 4	W. H. Laban, West Bromwich Hospital.
West Bromwich ..	259 5 0	13 3 4	246 1 8	247 2 7	10 18 4	236 4 3	256 19 9	10 8 5	240 11 4	Edwin White, Wolverhampton General Hospital.
Wolverhampton ..	640 2 10	5 5 0	634 17 10	625 15 9	15 7 6	610 8 3	597 8 0	9 12 0	587 16 0	Edward Riggs, Guildhall.
Worcester ..	443 7 1	23 14 8	419 13 0	456 16 6	27 10 0	429 6 6	511 12 0	28 7 4	482 4 8	

• Secretary or Hon. Secretary of Hospital.

† Hospital Sunday and Saturday Funds worked by same Committee.

HOSPITAL SATURDAY.

The methods of collecting the Hospital Saturday Fund vary in different places. The first, best, and most complete system is that which results in the organisation of a weekly collection amongst all the workmen in every establishment in a given district, on the plan already explained. The second method is to hold a collection on one day in the year. These collections are organised by a Central Committee, which places itself in connection with the various workshops, and organises street collections for the district. These Hospital Saturday Councils then devote the proceeds (after deducting the expenses) amongst the various institutions, in such proportions and on such a system as each Council may determine to be best. Tickets are then received by the Hospital Saturday Councils, and are by them distributed amongst the contributing workshops on application by the foreman or employés of the contributing firms.

Various methods of raising money have been tacked on to the Hospital Saturday movement, some of which, to say the least, are of doubtful value. The street collections, for instance, have called forth a great amount of criticism, and are held, and we think on the whole wisely held, to present many serious objections. Other methods embrace benefit performances at theatres and concert halls, open-air concerts, football matches, cricket matches, fêtes, and other similar efforts. The objection to all these is that the more intelligent of the working classes hold that hospital support is a privilege which appertains to their class in common with every other class of the community, and that to go outside the workshops is in effect to diminish the importance and value of the movement, by enabling critics to declare with justice that the moneys raised on Hospital Saturday do not to a large extent come from the pockets of the artisans. If Hospital Saturday is ever to be as completely successful as the best friends of the hospitals and the working classes could wish, it must be entirely a working class movement. The British workman has shown over and over again that, if he is made to feel the responsibility which rightly attaches to his class in this matter, he is capable of exercising great self-denial, and showing marked liberality in a good cause. These considerations are worthy of attention, and we commend them to those who have anything to do with the management of Hospital Saturday throughout the country.

The following table gives the receipts and expenses of the various Hospital Saturday organisations in certain towns of Great Britain of twenty-five thousand inhabitants and upwards.

HOSPITAL SATURDAY COLLECTIONS.
Table showing the amounts collected by the Hospital Saturday Fund in certain towns of Great Britain of 25,000 inhabitants and upwards, and the working expenses for the years 1888, 1889, and 1890.

Name of Town.	1888.				1889.				1890.				Secretary.
	Total Sum Collected.	Working Expenses.	Amount paid to various Charities.		Total Sum Collected.	Working Expenses.	Amount paid to various Charities.		Total Sum Collected.	Working Expenses.	Amount paid to various Charities.		
London ..	11,764 0 0	1,400 0 0	10,000 0 0	13,027 0 0	386 5 3	7 5 3	279 0 0	26,333 0 0	305 17 9	7 1 6	298 16 3	W. G. Bunn, 59 Farringdon St., E.C.	
Bath † ..	7,689 0 5	382 10 5	7,600 0 0	8,658 10 1	2,544 15 5	Nil	2,544 15 5	8,590 5 7	404 4 0	150 0 0	9,400 0 0	W. Stockwell, Royal United Hospital.	
Birmingham ..	2,560 13 8	Nil	2,560 13 8	2,544 15 5	1,503 9 7	70 0 0	1,420 0 0	2,448 18 1	79 12 8	Nil	2,398 18 1	W. T. Smedley, 7A Newhall St., J. Eastwood, Blackburn and E. Lancashire Infirmary.	
Blackburn ..	1,266 8 4	66 8 4	1,200 0 0	1,503 9 7	1,503 9 7	70 0 0	1,420 0 0	1,503 9 7	79 12 8	Nil	1,570 0 0	J. Biscoe, 97 Chorley Street.	
Bolton ..	850 9 1	Nil	850 9 1	860 16 3	1,047 5 0	Nil	1,047 5 0	1,159 10 7	Nil	8	1,559 10 7	H. Webb, Burr Hospital.	
Burton-upon-Trent ..	973 10 6	Nil	973 10 6	1,047 5 0	212 19 2	10 5 0	212 19 2	1,159 10 7	Nil	9	201 11 0	G. W. Cursey, University Union.	
Bury ..	101 4 0	20 2 0	101 4 0	212 19 2	368 0 2	37 1 10	330 18 4	217 0 0	18 5 11	9	335 2 8	H. J. Pines, Cathedral Chambers.	
Cambridge ..	291 16 0	29 2 0	262 14 0	368 0 2	1,026 16 1	35 1 9	991 14 4	655 17 6	36 6 3	3	570 11 3	C. E. Bland, Essex and Colchester Hospital.	
Canterbury ..	537 17 8	44 14 5	496 3 3	537 17 8	1,026 16 1	35 1 9	991 14 4	655 17 6	36 6 3	3	570 11 3	T. H. Harris, 2 Orme Villas, Lower Ford Street.	
Canterbury ..	938 1 11	30 16 9	907 5 2	1,125 11 8	1,125 11 8	62 17 10	1,062 13 10	1,155 14 3	68 18 6	1	1,086 15 9	J. C. Barnes, Siddals Road.	
Cheltenham ..	1,102 6 10	62 10 8	1,039 16 2	1,125 11 8	237 14 11	15 14 11	222 0 0	230 4 7	16 4 7	2	216 0 0	G. H. Shipgate, Royal Albert Hospital.	
Cheltenham ..	243 14 8	15 14 8	228 0 0	237 14 11	552 19 1	31 7 6	483 17 0	61 14 3	2	0	59 14 3	R. J. Mills, 60 London Road.	
Chorley ..	943 4 7	20 4 7	923 0 0	923 0 0	552 19 1	31 7 6	483 17 0	61 14 3	2	0	618 17 0	Joseph Bates, Huddersfield Inf.	
Huddersfield ..	358 14 2	13 14 2	345 0 0	455 15 11	455 15 11	11 15 11	442 0 0	348 14 0	14 0 6	6	335 0 0	George Ramsey, 42 Windsor St.	
Hull ..	173 16 2	Nil	173 16 2	151 4 10	151 4 10	Nil	151 4 10	157 11 1	Nil	0	157 11 1	T. E. Mayhew, E. Suffolk and Ipswich Hospital.	
Ipswich ..	4,326 1 8	235 19 4	4,090 2 4	5,179 3 9	232 0 4	4,938 3 5	5,061 14 1	313 3 6	4,948 10 7	7	4,948 10 7	J. W. Jackman, 78 Basinghall Street.	
Leeds (Work-people's Fund) ..	2,022 17 4	Nil	2,022 17 4	2,366 0 0	2,366 0 0	Nil	2,366 0 0	2,568 10 5	Nil	0	2,568 10 5	T. A. Wykes, Leicester Inf.	
Leicester ..	300 0 0	Nil	300 0 0	320 15 0	320 15 0	Nil	320 15 0	363 6 0	31 0 4	4	363 6 0	Adam Wright, 57 Cross Street.	
Leicester ..	2,694 7 6	105 4 8	2,748 15 5	3,236 15 0	364 2 7	2,942 2 6	4,073 6 9	334 8 0	334 8 0	8	3,683 8 0	James Wood, Pressons Road.	
Liverpool ..	257 15 6	11 2 3	246 13 3	269 0 11	10 0 9	259 6 6	297 0 7	10 2 6	286 17 7	7	286 17 7	G. H. Corbichiev, Macdesfield (General Infirmary).	
Macclesfield ..	235 12 2	4 0 0	231 3 2	224 14 0	224 14 0	6 0 0	218 14 0	208 18 6	6 0 0	0	202 18 6	Angus Macpherson, R. T. Milner.	
Middlesbrough ..	921 2 1	50 0 0	840 0 0	927 10 2	49 0 0	900 0 0	1,200 0 0	47 0 0	47 0 0	1	1,150 0 0	J. K. Vernon, 69 Hood Street.	
Northampton ..	277 6 7	14 2 0	263 4 7	275 10 3	16 12 9	238 17 6	298 19 0	19 1 1	19 1 1	1	279 17 11	W. Weaver, Norfolk Chronicle.	
Norwich ..	277 6 7	14 2 0	263 4 7	275 10 3	16 12 9	238 17 6	298 19 0	19 1 1	19 1 1	1	279 17 11	W. Weaver, Norfolk Chronicle.	

* Secretary or Hon. Secretary of Hospital.
† Not started till 1890.

† Not started until 1890.

† Not started until 1889.

* Secretary or Hon. Secretary of Hospital.



CHAPTER XI.

IN- AND OUT-PATIENTS.

FEW young men have made a greater impression upon his day and generation in the course of a short life than the late Prince Leopold. His public speeches on social topics were always eagerly anticipated by the more intelligent of his countrymen ; and rightly so, for they often contained much material for thought and much sound sense. Shortly before his death, at the annual meeting of the Charity Organisation Society, Prince Leopold gave utterance to the following terse summary of the question we have to consider in the present chapter. He said : " Our hospitals are a charity of which any nation may well be proud, but it is plain that the immense increase of population has somewhat altered the conditions under which they can be of most use. The time and attention of eminent physicians are generously placed at the service of the poor ; but, unfortunately, eminent persons have no more time than persons who are not eminent, and when a million out-door patients apply at the London hospitals in one year it becomes rather a delicate arithmetical question—How many seconds can be bestowed on each of them ? The hospital staffs are the consulting physicians, the operating surgeons, the trained nurses of the poor, and it is too much to expect of them to be their family doctors and their druggists into the bargain. Provident dispensaries are the key to this problem ; " a view which experience has not, however, confirmed.

IN-PATIENTS.

There is one fact in connection with the voluntary hospitals of Great Britain and Ireland which no one has been bold enough to

dispute. The in-patient department, so far as the patients are concerned, fulfils a useful purpose in a practical and efficient manner, without in any way pauperising the recipients or causing them to lose their self-respect. In other words, the closest investigations have convinced even the most sceptical that at the present time, or at any rate until quite recent years, there was no abuse of the in-patient department of our hospitals by persons able to pay for their treatment when ill in a hospital bed. During the last ten to fifteen years a great impetus has been given to the pay system of medical relief, which mainly affects the in-patients' department, and, as we have shown elsewhere, the feeling is steadily growing, and there is reason to expect, as there is sound reason to hope, that sooner or later most of the hospitals will have paying beds, so that every in-patient will have the opportunity of contributing, according to his means, to the cost of his maintenance and treatment. It has been suggested to us more than once, and we have already made it a feature of the last edition of the *Hospital Annual*, that a comparison of the figures of some of the large hospitals, showing the proportion of the people who receive hospital in-treatment, might prove instructive and helpful. The table we are about to give contains the facts concerning the thirty-four largest towns in Great Britain and Ireland, which towns are arranged in the order of the amount of free medical relief given by the hospitals therein to the residents. It has been thought that greater interest would be given to the figures by the addition of the numbers and classes of medical institutions established in each town, and these further facts have therefore been included.

We have purposely qualified the statement that the most sceptical have not as yet ventured to assert that the in-patient departments of the hospitals were abused in this country, by the words "until recent years." We are inclined to believe that the figures contained in the table will cause a good many people to realise that this qualification is certainly justified, when in great cities like Manchester, Liverpool, and Birmingham, twenty to thirty patients in every thousand enjoy the luxury of in-patient relief, whereas in smaller towns like Portsmouth and Oldham, five or six people only out of every thousand at present claim this privilege. All honour to the citizens of the smaller towns, where the differences are due to better management on the part of the inhabitants.

PROPORTION OF IN-PATIENTS AND HOSPITAL BEDS TO POPULATION.

The following Table shows the proportion of In-Patients to Population, the Total Number of Hospital Beds available, and the Number of Hospital Beds per Thousand of the Population, together with the Number and Class of Medical institutions existing in the Thirty-four largest Towns in Great Britain and Ireland, in the order of In-Patients to Population.

No.	Name of Town	Population.	In-Patients.		Beds.		Number and Class of Institution.		
			Total Number.	Number per 1,000 of Population.	Total Number.	Number per 1,000 of Population.	General.	Special.	Dispensaries.
1	Dublin ...	353,082	16,236	45.9	2,256	6.39	8	16	5
2	Edinburgh ...	261,970	10,075	38.4	996	3.80	2	5	7
3	Wolverhampton ...	82,799	2,699	32.6	260	3.14	1	1	...
4	Bristol ...	222,049	6,714	30.2	600	2.70	2	4	5
5	Birmingham ...	429,906	12,940	30.1	1,109	2.58	2	10	1
6	Glasgow ...	567,143	16,501	29.1	1,953	3.44	3	12	3
7	Aberdeen ...	121,905	2,920	23.9	324	2.65	1	4	1
8	Newcastle ...	187,502	4,220	22.5	654	3.48	1	8	1
9	Leicester ...	142,581	3,000	21.0	240	1.68	1	...	1
10	Manchester ...	506,469	10,215	20.1	1,434	2.83	3	11	5
11	Liverpool ...	517,116	9,757	18.8	1,160	2.24	5	12	4
12	Plymouth...	84,464	1,595	18.8	150	1.77	1	1	2
13	London ...	4,221,452	78,033	18.2	8,094	1.91	22	60	57
14	Brighton ...	115,606	2,084	18.0	272	2.35	1	5	3
15	Norwich ...	101,316	1,716	16.9	266	2.62	1	2	1
16	Leeds ...	369,090	5,677	15.4	504	1.36	1	3	1
17	Blackburn ...	120,496	1,768	14.6	90	0.74	1	...	...
18	Sunderland ...	131,302	1,890	14.3	275	2.09	1	2	1
19	Belfast ...	255,896	3,605	14.1	648	2.53	2	7	...
20	Dundee ...	155,640	2,164	13.9	250	1.60	1	1	...
21	Derby ...	94,496	1,299	13.7	216	2.28	1	...	1
22	Bradford ...	216,938	2,936	13.5	479	2.20	1	3	1
23	Salford ...	198,717	2,374	11.9	249	1.25	1	1	...
24	Nottingham ...	212,662	2,488	11.7	298	1.40	1	5	1
25	Preston ...	107,864	1,268	11.7	108	1.00	1	...	1
26	Sheffield ...	325,304	3,757	11.5	448	1.37	2	5	1
27	Huddersfield ...	95,656	1,034	10.8	178	1.86	1	1	...
28	Halifax ...	83,109	867	10.4	132	1.59	1	1	...
29	Birkenhead ...	99,597	1,028	10.3	171	1.71	1	4	1
30	Hull ...	200,934	2,007	9.9	194	0.96	1	1	1
31	Cardiff ...	130,283	1,236	9.4	120	0.92	1	1	...
32	Bolton ...	115,353	900	7.8	107	0.93	1	...	...
33	Portsmouth ...	160,128	1,052	6.5	103	0.64	1	...	...
34	Oldham ...	132,010	754	5.7	180	1.36	1	1	...

OUT-PATIENTS.

It has been assumed with very great confidence by people who are usually entitled to be believed, that the out-patient department has grown up within the last half-century. As a matter of fact, out-patients have been attended at the hospitals of this country with very few if any exceptions from the date of their establishment. Mr. W. J. Nixon has shown, for instance, by documentary evidence, that the impression that the out-patient department is but the growth of the last fifty years has arisen owing to the want of records of the earlier work done by the hospitals amongst out-patients. At the London Hospital an out-patients' department has been in operation from the very foundation of the charity. Mr. Nixon's researches amongst the old registers reveal the fact that 2,188 out-patients were received and treated there in the eighteen months ending May 1742. The following extract from the minutes of the weekly meeting of the House Committee, held on the 22nd of December, 1741, is interesting in this connection: "That the several rules and orders for the regulation of out-patients being read were, upon the question being put, unanimously confirmed and ordered to be suspended in prominent places in the hospital." It is further interesting to note, that in those days out-patients used to attend personally and return thanks to the committee for being cured. Mr. Nixon adds, that these out-patients were "led in" by the several surgeons and physicians, "a moving evidence of the good workmanship of the doctors." "The first man attending the committee of the London Hospital to return thanks appeared before that august assembly on the 22nd of December, 1741, and his name—for I take pleasure in recording it—was Thomas Sturgess." So much for the myth which ascribes the origin of the out-patient department to the latter half of the nineteenth century.

Having disposed of this, let us now proceed to examine the grounds upon which the out-patient department, as it at present exists, is held to be proof positive of the degeneracy of the race. The testimony, upon which the critics referred to rely, is said to be the general exhibition of a desire amongst all classes to live at a rate far beyond their means. To accomplish this, people with limited incomes, whatever their social rank, have come to adopt the principle of accepting as gifts, or at any rate without payment, everything which they can possibly secure in that way, without the slightest

feeling that they are behaving in a reprehensible manner, or that their self-respect would be injured thereby. Hence it is that in our own experience we have heard a discussion between two commercial men, in the receipt of incomes approaching £1,000 a year, who laid it down as a principle that it is far better to send your wife to the out-patient department of a great metropolitan hospital to see an eminent physician, because in this way she will be able to save £2 1s. out of the two-guinea fee, and will be spared the fatigue of two hours of waiting in the consulting-room of the eminent medical authority whose opinion on the case it is desirable to obtain. Asking for an explanation, it was pointed out that most of the hospitals have a system whereby urgent and special cases get a blue or red ticket from the out-patient attendant, which entitles them to be seen before the ruck of the patients, immediately the honorary officer arrives. The two men referred to asserted it as a fact, that those who know their way about the metropolitan hospitals, and, indeed, every large hospital also, can, by giving a small fee to the out-patient attendant, and by the exercise of a little tact, secure without much difficulty the necessary distinguishing ticket, and so find themselves in the presence of the physician or surgeon of their choice without having to wait more than half an hour at the outside. We have no doubt that there is truth in the assertions we have reproduced, but, at the same time, we have sufficient confidence in the hospital authorities to believe that they do endeavour to prevent such a system from taking root and producing the results upon which the two commercial men congratulated themselves heartily. At any rate, there can be no question, looking at this subject of out-patients as it is regarded by the great mass of the people to-day, and comparing the people's view with that of their fathers and grandfathers, we have this evidence of great moral degeneracy—that all sorts and conditions of men and women have come to regard the hospitals as the best possible places to go to when they or any members of their family fall ill. The growth of the Hospital Saturday and Hospital Sunday movements, the increase in the number of contributors to the hospital subscription lists, the extravagance of the age, which affects all classes, and the absence of a crusade against practices demoralising and damaging to the medical institutions, have all combined to produce the overgrown out-patient department of the present day, which demoralises, and must ultimately degrade, most of the people, and so ought to be remedied or entirely removed.

Our fathers and grandfathers would never have permitted their children to be out-patients of a hospital—that is, participants of charity—and anybody who had suggested that they themselves should receive gratuitous relief would have had a short shrift and small mercy at the hands of our robuster sires. This being undoubtedly the case, we can but regret the present condition of affairs, in Great Britain especially ; a condition which, unfortunately, is spreading in America and other countries, and may therefore be taken to represent general degeneracy in the race all over the world. It is rapidly becoming a question for the people whether such degeneracy shall continue, or whether it shall be decreased until the existing evils are entirely annihilated. It is for the responsible managers of the medical institutions to determine whether they can, with any regard to their responsibilities, allow their out-patient departments to continue to grow and increase out of all proportion to the needs of the population. Such growth must be at the expense of every branch of the work connected with our greatest medical institutions, which have sometimes to suffer in efficiency from a paucity of funds owing to the ever-increasing expenditure upon a department of relief which, to say the least, is calculated to do as much harm as it can possibly do good to many of those who flock to it from day to day.

It is also a question for the medical profession, which affects very deeply its honour and integrity, and is calculated to damage its reputation if the present state of things continues, how far, if at all, any medical man of ability and standing is justified in devoting a large amount of his time to out-patient work under conditions which render that work perfunctory, incomplete, and at times ludicrously inadequate if a due regard be paid to the decencies of treatment, and a reasonable amount of time be given to each case with a view to an exhaustive examination and a correct diagnosis ?

It is not for us to attempt to answer these questions on behalf of either the people, the hospital managers, or the honorary medical officers. We do, however, feel called upon to state our conviction, as a result of an experience of over a quarter of a century, that, having regard to all the difficulties, the abuses, and the anomalies of the out-patient department, it would be a good day for everybody which saw a general order issued abolishing out-patient departments in the hospitals altogether for a time. We advocate the entire closing of the out-patient department, a course which would not in any way interfere with the reception of urgent medical and accident cases at the surgeries of our hospitals ; because we are convinced

that if this department were closed, and if it remained closed, say for six months, it would be found that the majority of the cases were able to find the medical relief they required, either at the dispensaries (poor law and voluntary), or at the hands of the private medical practitioners who practise in the neighbourhoods where these people reside. We would be the last to advocate any step which would affect or injure, or even place difficulties in the way of, the poor and deserving in the hour of sickness, but our firm conviction is that none of these evils would arise from the closing of the out-patient departments for a definite time. Were this once done, we believe that everybody would be astonished when they came to look the circumstances in the face, and to reflect upon the evils which had thus been put an end to, and the ease with which a remedy had been prescribed, adequate to meet such cases as might require attention, and adequate also to prevent any repetition of the ever-growing abuses of a section of hospital work, which has been allowed to extend and ramify until it results in a preponderance of evil and a relatively small amount of good.

RECENT FACTS AS TO ABUSE OF OUT-PATIENT DEPARTMENTS.

Some readers may think that the foregoing criticism is too severe, and that the conclusions arrived at are not justified by the facts. We have therefore taken the trouble to prepare the most recent figures available, in order to show that, taking the individual patients who at the present time attend at the out-patient departments of the hospitals each year, there is good reason to fear that the ever-increasing number of patients represents an ever-growing tendency in the downward direction on the part of the population, so far as those principles are concerned which most tend to build up and mature the best points in the character of a people. It must be remembered that the table we are about to give does not contain all, or anything like all, the thousands and thousands of patients who receive free medical relief at the great dispensaries and similar organisations in the large towns. It also necessarily excludes the poor law dispensary patients and many others who directly or indirectly are in receipt of free medical relief. Having regard to all the circumstances as they are known to us, we believe that in very many of the large towns, if 50 per cent. were added to the numbers given in the table, they would then in all probability give

PROPORTION OF OUT-PATIENTS TO POPULATION.

The following Table gives the Population, Number of Out-Patients, Number of Out-Patients per Thousand of the Population, and Number and Class of Medical Institutions in the Thirty-four largest Towns of Great Britain and Ireland, in the order of Out-Patients to Population.

No.	Name of Town.	Population.	Out-Patients.		Number and Class of Institution.		
			Total Number.	Number per 1,000 of Population.	General.	Special.	Dispensaries.
1	Dublin	353,082	162,164	459	8	16	5
2	Liverpool	517,116	198,378	383	5	12	4
3	Edinburgh	261,970	95,535	365	2	5	7
4	Bristol	222,049	77,068	347	2	4	5
5	Leicester	142,581	49,309	345	1	...	1
6	Birmingham	429,906	144,559	336	2	10	1
7	Newcastle	187,502	54,321	289	1	8	1
8	Manchester	506,469	146,298	288	3	11	5
9	Brighton	115,666	32,964	285	1	5	3
10	London	4,221,452	1,158,026	274	22	60	57
11	Wolverhampton	82,799	18,279	220	1	1	...
12	Belfast	255,896	47,152	184	2	7	...
13	Leeds	369,090	67,259	182	1	3	1
14	Glasgow	567,143	85,839	151	3	12	3
15	Aberdeen	121,905	16,993	139	1	4	1
16	Sheffield	325,304	44,907	138	2	5	1
17	Nottingham	212,662	26,559	124	1	5	1
18	Birkenhead	99,597	11,404	114	1	4	1
19	Norwich	101,316	10,577	104	1	2	1
20	Plymouth	84,464	8,059	95	1	1	2
21	Salford	198,717	18,432	92	1	1	...
22	Derby	94,496	8,268	87	1	...	1
23	Cardiff	130,283	11,058	85	1	1	...
24	Hull	200,934	16,574	82	1	1	1
25	Dundee	155,640	12,303	79	1	1	...
26	Preston	107,864	7,998	74	1	...	1
27	Bradford	216,938	15,193	70	1	3	1
28	Blackburn	120,496	6,121	50	1	...	...
29	Halifax	83,109	4,198	50	1	1	...
30	Huddersfield	95,656	4,349	45	1	1	...
31	Portsmouth	160,128	6,863	42	1	...	...
32	Sunderland	131,302	5,538	42	1	2	1
33	Bolton	115,253	3,761	33	1	...	...
34	Oldham	132,010	3,711	28	1	1	...

a fair representation of the actual facts, so far as free medical relief is concerned. Anyone who can maintain, in the face of these figures and of the further fact that the percentage in the out-patient department goes on increasing at a ratio out of all proportion to the increase of the population, that it is right to permit the present system to continue and develop, must, in our judgment, be blind to the necessities of our day and generation, and have little or no thought for the welfare of the people of his own times. It may be observed further, that although we are of opinion (and we speak with some sureness on the point, having resided ourselves for twelve consecutive years in different hospitals) that the clinical hospital is by far the best place for any man or woman who is seriously ill, we are also aware that the enormous development in out-patient relief reaches its highest point in those towns and communities where there are medical schools. If the increase goes on at the present rate, essential as medical schools are to the well-being of the population, the time cannot be far distant when the attention of the medical profession will have to be drawn to the abuses attending the unrestricted encouragement which is given to all classes of people to resort to the hospitals, or else, sooner or later, every class will find its representatives under treatment without payment in the out-patients' room. Who will venture to contend that one in every two of the population, or one in every two and a half or even one in every three persons in a great centre of population, can under any conceivable circumstances require, or be justified in receiving, free out-patient relief at the hospitals? Yet the table given on the opposite page shows that there are numerous towns either in this condition or approaching this condition, indefensible and degenerating though it be.

EFFORTS AT REFORM.

We could fill many pages if we were to attempt to give even in outline the proposals which have been made by committees of inquiry—medical, lay, and mixed associations of medical men, charity organisations, and other societies—all recommending specifics with the object of removing, or checking, or controlling the evils of out-patient practice. Any one who has carefully studied the question must be aware that the ablest of all these reports is that of the committee and sub-committees appointed to inquire into the subject of out-patient hospital administration in the metropolis in 1871. This is known as Sir William Fergusson's

Commission, because he was the chairman and took an active part in the proceedings. In brief its recommendations were :—

1. An improved administration of poor law medical relief.
2. A placing of all free dispensaries under the control of the poor law authorities, to secure a proper system of inquiry previous to the administration of gratuitous medical relief.
3. The establishment of a system of provident dispensaries, by conversion of the existing free dispensaries and by the foundation of others.
4. *In order to improve the clinical teaching of the out-patient departments of the special and general hospitals, it was desirable to curtail the present unrestricted system of gratuitous relief, partly by the selection of cases possessing special clinical interest, and partly by the exclusion of those who on social grounds are not entitled to gratuitous medical advice.*
5. The abolition of all payments for medicine or free medical advice from out-patients.
6. The payment of the medical staff engaged in out-patient work.

In the last twenty years several memorials have been presented to the Home Secretary of the day asking for a commission of inquiry. Individual towns have instituted local investigations and issued important reports (that of the Birmingham Hospital Reform Inquiry Committee being probably the most important), whilst men of the practical knowledge and eminence of Dr. Bristowe and Mr. W. J. Nixon have read papers evoking instructive discussions, all tending to prove to the hilt that the out-patient department is an anomaly in its present condition, and that steps should speedily be taken to reform it, either as to its administration or methods, or off the face of the earth altogether. We do not propose to give here the substance of these papers and reports, because the recommendations of Sir William Fergusson's Committee still remain to a great extent unattended to and unadopted. All that the best brains of the most energetic administrators have been able to do since that report was issued has been to repeat *ad nauseam* the same patent facts, and to urge the adoption in the main of the same important reforms. One fact, and one fact only, we would specially urge. Sir William Fergusson's Committee had the courage to declare in the fourth recommendation that to maintain an unrestricted system of gratuitous relief in the out-patient department of the great hospitals was to curtail the possibility of making those departments

efficient for clinical purposes, and that if the students were to secure the maximum of benefit by attending out-patient practice, a system of weeding-out must be adopted which would secure the selection of cases possessing special clinical interest, and at the same time exclude from treatment on social grounds all applicants who are not entitled to gratuitous medical services. This recommendation is somewhat startling to-day, because before the Hospital Committee of the House of Lords several of those who were responsible for the medical teaching of the London hospitals have declared, that to reduce the number of the out-patients would be to curtail, not the abuses, but the use of the out-patient department for clinical purposes. Hence the successors of Sir William Fergusson and his colleagues of twenty years ago have turned quite round, and they now urge, if we understand them rightly, that the more out-patients you can collect in the out-patient department, the better it is for the students, because they can in this way secure the maximum of material, and because this ever-increasing mass of humanity is essential to the successful teaching of the rising generation in things medical. The effects of this contention, as we have already stated, are shown by the figures in the table. Wherever there is a clinical hospital in the centre of a great population, there the out-patients' departments are crowded. Now a crowded out-patient department, as Sir William Fergusson's Committee wisely declared, is opposed to clinical teaching, because it is so difficult in the time at the disposal of the staff to weed out, classify, and utilise that portion only which is really useful for practical instruction. We must leave the present race of doctors to justify this *volte-face*. We venture to think that the best of them, on reflection, will admit that Sir William Fergusson and his colleagues were right, and that the modern school of teachers are wrong in taking up a position that every day shows must tend more and more to diminish the powers of the teachers to give instruction, while it increases the abuses and the evils of a system of medical relief, which under the best of circumstances tends rather to the injury of the people, and to the disadvantage of the great body of general practitioners whose existence and well-being are essential to the welfare of the poorer classes throughout the country.

We have thought it would be useful, and tend in the direction of re-awakening and fixing public attention to the evils of the out-patient department and to the stern necessity which undoubtedly exists for the application of drastic remedies, to reprint in the

Appendix to the present volume (*a*) the report of Sir William Fergusson's Committee in 1871, and (*b*) that of the Birmingham Committee of Inquiry, issued in the summer of 1891.

PRACTICAL REMEDIES SUGGESTED.

The report of the Birmingham Hospital Reform Inquiry Committee concludes with five recommendations, four of which are practically covered by those made by Sir William Fergusson's Committee. The exception is important, and shows the growth of public opinion in the right direction. Twenty years ago the general feeling amongst hospital managers was, in effect, that although abuses undoubtedly prevailed at certain hospitals, each manager was confident of the excellence of the system pursued in the institution for which he was responsible, and was prepared to resist to the death any attempt to reform the methods in his management. Many things have happened since 1871, however, and the growth of public and hospital opinion has convinced the more intelligent, at any rate, that to secure efficiency, and to adequately meet the needs of the population in a given centre, it is desirable and in accordance with the best interests of the hospitals, that their managers should combine by the formation of a general council representative of all the medical public institutions of each city or township. This course is the new feature in the report of the Birmingham Committee. It represents a growth of opinion which is encouraging, and if acted upon everywhere will tend largely to secure the application of remedies which there is reason to hope will prove effective in the end.

The figures we have given show the enormous importance of dealing with this question wisely and speedily. For this reason we venture to throw out one or two suggestions for the consideration of those responsible for the management of our hospitals. We have already expressed our views in favour of the complete closure of all out-patient departments, for a time at any rate, and stated the reasons upon which those views are based. We need not, therefore, pursue this point further. A close study of all the issues involved leads us to the conclusion, that no effectual remedy will be possible until the recommendation of Sir William Fergusson's Committee is carried out, and every member of the medical profession attached to the voluntary hospitals of this country receives remuneration for his services. At the present time, if the lay

managers become urgent in favour of an alteration of system or the introduction of a reform in certain directions, they may be met by the declaration that although the step proposed may be desirable on business grounds, it is objectionable because it would unduly trench upon the prerogatives and privileges of the medical staff, the members of which are entitled to special consideration because of the large amount of eleemosynary service which they render voluntarily to the hospitals. Any organisation or system which relies upon voluntary labour to a large extent, and allows this fact to outweigh all other considerations when those who render it oppose proposed changes, must ultimately fail to secure the maximum of efficiency in the administration for which it is responsible.

It will be said, of course, that the hospitals cannot afford to pay the medical staff. This is, however, not true in fact, though the assumption raises another question—namely, the claim which the lay managers have upon the fees of the students who attend the practice of the hospitals, seeing that considerable expenses connected with these schools are often defrayed out of the general funds of the hospitals. We are in favour of an inquiry, by a joint committee of medical men and laymen attached to each hospital, into the whole question of medical service as it is at present rendered, with the object of securing such a rearrangement of the system now in force as will secure that the funds of the hospitals shall not be trenched upon by the medical schools, and that so it shall be possible to offer adequate, or at least reasonable, remuneration to all members of the medical staff. Not only would this change do a great justice to the younger men who are attached to the hospitals, but it would secure the abolition of existing evils, which arise from the fact that very often it is a question of means rather than of mind and ability which settles whether a capable man, who has taken high qualifications at his university or medical college, shall continue to render the best services he has to give to the hospital where he was trained. It is a grievous hardship that the younger men, who have nine-tenths of the labour attaching to the medical instruction of students, should receive about one-tenth of the fees. Such anomalies as these are not to be permitted to continue without remonstrance, because they are inimical to the best interests of the medical profession as well as to the public, and so ought to be abolished without delay. If all the members of the medical staff were paid, the

lay-committees, who, after all, have to finance the hospitals, would be in the position of considering every point connected with their administration absolutely upon its merits. They could then attach proper weight to the point of view which, after all, is the right view: whether or not the financial condition of the institutions warrants expenditure in certain directions, or whether on the whole it would not be better to curtail that expenditure in order to have more money to expend in other directions better calculated to promote the speedy recovery and comfort of the patients, who, after all, should be the first consideration on all occasions? We believe the younger members of the medical profession would welcome a change in this direction, which is demanded by every sense of justice and every consideration for the welfare of our medical charities.

There is another feature in connection with medical relief which is well worthy of consideration. At the present time a large employer of labour will give a subscription of from ten to fifty guineas a year to a hospital, and is in consequence held to be a liberal benefactor of the institution. Inquiry has shown that in many such cases not only is the employer not a liberal benefactor, but on the contrary he receives out of the institution in actual value a sum many times more than that represented by his annual contribution to its funds. It is easy to see that where a man employs many hundreds of hands, at the ticket hospital he is able to use all the tickets to which he is entitled in virtue of his subscription, and so it comes to pass that the treatment of the patients whom he introduces each year amounts to a considerably larger sum than he contributes. We would counsel the hospitals to keep a register which would show the names of the employers of the patients who resort to it for relief. At the end of each year they should take out from their registers the names of the patients sent by each employer of labour, and should show how many days each case was under treatment and what the treatment cost. In this way they would be able to make up an account to the debit of the employer, and so convince him that to warrant his taking up the attitude of a supporter of the institution it would be necessary for him, as a mere matter of figures, to quadruple his subscription without delay. One hospital has had the wisdom to adopt this system, with the result that its subscription list has more than doubled in the course of a few years. Let all hospitals adopt it, and then they will find that their subscriptions will bear something like a reasonable proportion to the total expenditure.

Another matter should engage the attention of the hospital authorities. It is not to their interest to give letters to a central organisation such as the Hospital Saturday Fund, when the council of such a body demands a *quid pro quo* in the shape of tickets to be distributed by the council at their will and discretion. It is far better for each hospital to bring itself into direct personal communication with every workshop, and to encourage a system on the Birmingham plan which provides that every employé shall contribute a halfpenny or a penny or twopence a week, according to his wages, to a box in the workshop, out of which money is taken to pay the subscriptions to the various institutions to which the workpeople resort, in exchange for which tickets are received which are given to the sick workpeople who fall ill in the course of the year. On a given day in each year the box is opened, and all the money which it contains is remitted to the authorities of the Hospital Saturday Fund, as a free gift to the medical institutions. In this way the hospitals gain the full advantage of the contributions of the workpeople, without any appreciable cost for administration, whilst the workpeople secure a feeling of independence by realising that they pay the value assessed by the hospital every time they go to the institution, and thus discharge the full amount actually expended in treating the patients they send there for treatment. Furthermore, the workpeople have the satisfaction of knowing that, apart from the *quid pro quo* they thus receive, they are, in virtue of their weekly contributions, enabled to send a relatively large free gift to the hospitals every year in order to help to defray the cost of maintaining and succouring those members of the community who are less fortunately circumstanced than themselves.

We venture to think that the more these facts are examined, the more they will attract and fix the attention of the managers of hospitals, the subscribers, and the artisan classes of this country. If this be the case, the necessary reforms will not be long in coming, because there is no class of the community which takes better care to see that its members do not abuse the charities than the artisan class, who by the last system are enabled to check for themselves each case which goes from their workshop to the hospital, and to assure themselves that it is in every way one which is entitled to receive the benefits the institution has to offer. This last system has the further advantage of enabling the workshops to send their trivial cases to the local practitioner when they are not of sufficient importance to go to the hospitals, and to pay him out of the common

fund for the services he renders. Thus the hospitals may be relieved of a great number of cases which would otherwise resort to them without payment of any kind, and the general practitioner may be helped, and very properly helped, to maintain himself and to minister to the wants of all people who can afford to pay some fee for medical treatment when sick. We are convinced that there is much to be said on every ground in favour of the views we have here expressed, and if the suggested alterations are adopted, together with the American plan which puts the burden of proof of fitness to receive free medical relief upon the patient, who has to produce evidence through his friends of his circumstances and fitness, instead of the Hospitals employing an agent to try and find out what the circumstances of each patient are, then, but not till then, will the out-patient department of our hospitals assume something like reasonable proportions, and at the same time be entitled to receive the respectful support and confidence of those who have at heart the well-being and advancement of the community at large.

FOREIGN OUT-PATIENT DEPARTMENTS.

The out-patient department has gradually established a foothold in most foreign countries. In America the hospitals have an out-patient department, or a dispensary as it is commonly called, and these are quite as liable to abuse by being called upon to give medical advice and treatment to those who are not entitled to such charity, as are the hospitals in Great Britain and Ireland. An account of the system will be found in the chapter on hospitals in the United States, and although the abuses are much less in America on the whole than they are in England, still the tendency is rather to increase than to diminish them at the present time.

In Europe we have found out-patient departments in nearly every country. Thus, in Germany the out-patient department is very similar to our own, but the number of cases received at the hospitals is relatively much less, owing to the fact that it is the custom for out-patient rooms, which are supported by private assistance, religious or benevolent, to be established in different parts of each large town. Each German hospital which has a medical school attached to it will be found to conduct on its own account a number of out-patient rooms, as specialism is widely recognised and encouraged throughout the Empire. Indeed, the out-patient

system is so fully established in Germany, that it is often to be met with in connection with asylums for the insane.

Most of the Dutch and Russian Hospitals have out-patient rooms, which are called ambulances in the latter country. In Italy, too, and also in France, the same system is to be met with, especially where students are attached to the hospitals. Speaking generally, it may be taken for granted that European and colonial hospitals encourage the attendance of out-patients, the arrangements for treatment being often very excellent, and including separate departments for sick children, nervous diseases, diseases of the skin, diseases of women, diseases of the eye and ear and throat, in addition to the usual organisation for the examination and treatment of ordinary medical and surgical cases. We have purposely abstained from giving any fuller particulars, in order to avoid the repetition of details common to all countries. Enough, however, has been said to show, that although the number of out-patients treated in the European hospitals is proportionately less than in England, still the same system widely prevails in most countries, and free consultations are not only countenanced but encouraged by the authorities of most hospitals, and indeed by all hospitals which are worked in connection with the medical schools.





CHAPTER XII.

NURSING SYSTEMS.

PART I.—GREAT BRITAIN AND IRELAND.

HOSPITAL NURSING.



NURSING has come to be regarded as a recognised calling for which a special apprenticeship must be served, and which should only be followed by those who pass certain examinations imposed by the different training schools. Practical experience in the wards of a large hospital, theoretical teaching from physicians, surgeons, and matrons, and, finally, the passing of an examination and the securing of a certificate constitute the course through which a nurse has to pass.

THE ORGANISATION OF THE NURSING STAFF.

In most hospitals the supreme authority over the nursing department is a matron, or lady superintendent, who must herself be a fully trained nurse. Under her there may be certain assistant matrons, if the institution is a large one, and generally there is a home sister, whose special duty is to attend to the housekeeping and superintend the home in which the nurses live. Over each ward of about 30 beds in a hospital is a 'sister,' who is directly responsible to the doctors for the nursing treatment of the patients of the ward. The title of 'sister' is only one of respect, and has often no religious signification; it means that she is a nurse of extra experience, who

has proved herself capable, not only of nursing, but of ward management, and, therefore, has been put in a position of authority. Under the sister there is usually a certificated or staff nurse to each 15 beds; under the staff nurses are as many probationers, or nurses serving their time of training, as the necessities of the ward require. It has been averred that if a change takes place in the condition of a patient, and is observed by a probationer, the probationer reports it to the staff nurse, who reports it to the sister, who reports it to the house physician, who reports it to the visiting physician. This is, of course, a slight exaggeration of hospital etiquette, but it shows the chain of communication by which every symptom of importance in any patient in a large hospital is reported to the 'chief,' or great consulting physician, who devotes certain afternoons in the week to the sick poor. Again, should a patient make any complaint against the management or efficiency of the hospital, it would be reported through the sister to the matron, who would bring it before the house committee, who, in their turn, would lay the matter before the court of governors if it was of sufficient importance.

THE MATRON.

The duties of the matron differ slightly according to the size of the institution over which she presides.

In an ordinary county infirmary or hospital of about 100 beds the following regulations may be taken as typical of a matron's work:—

1. The matron shall be in charge of the domestic arrangements in the infirmary, and be responsible to the managers, but more immediately to the house committee, for the good order and government of the household.
2. She shall visit all the wards and the house generally, and inspect the pantry, kitchen, store room, servants' rooms, &c., at least once a day, and shall carefully examine the state of the wards, and see that the nurses are attentive to their duties, and that the patients conform strictly to the regulations.
3. She shall take care of the provisions and stores, and see that sufficient supplies are provided and kept up, and, when goods are required, she shall write out the orders to be submitted to the house committee by the clerk. She shall check the quantities and qualities of the various articles as they are received, and see that they correspond with the contracts, certifying the same to the clerk.

4. She shall issue all supplies, as required by the dietary sheet as daily sent to her for the different meals.

5. She shall be careful that all the provisions are good, clean, and wholesome. She shall be present in the kitchen occasionally to see that they are properly cooked and served according to the diet sheet.

6. She shall, subject to the approval of the house committee, hire, suspend, and dismiss the nurses and female servants. She shall keep the time and pay books of all the nurses and female servants of the infirmary, and shall give them to the clerk for transmission to the treasurer, who will pay the amounts to the respective parties as may be arranged.

7. In the months of January and July she shall make an inventory of all the furniture, blankets, bedding, &c., then in use, and report the same to the house committee.

8. She shall supervise and instruct the nurses and probationers in all branches of nursing, and satisfy herself that the nurses are performing their duties carefully and efficiently.

9. For small and emergent orders she shall keep pass-books with the tradespeople, giving written reasons for such orders, initialling as a receipt each article supplied, and submitting the book to the house committee.

10. She shall retain the charge of the wines and spirits, and issue them to the patients in accordance with the medical orders.

11. She shall take charge of such money or articles of value as patients may have in their possession when admitted.

In the above case it will be seen that the matron is also the housekeeper; in the larger hospitals the housekeeping is, as a rule, relegated to other hands, and it becomes the duty of the steward to see to the stores and issue orders for provisions. When a matron has a staff of one hundred or more nurses under her, her duties become more purely those of a lady superintendent of nursing, and it takes her all her time to fulfil those duties, without having charge of the housekeeping, linen, stores, and provisions. A great deal of correspondence falls to the share of a matron of a large hospital; and she has also such social duties to perform as showing round the wards visitors who call, and keeping the hospital in touch with the rich ladies on whom its welfare often largely depends. In a cottage hospital, on the other hand, the matron is not only housekeeper and superintendent of nurses, but has often to act as dispenser and caretaker, and to attend to minor casualties. This is

the case in those small hospitals where there is no resident house surgeon. The remuneration of a matron varies from £50 to £250 per annum, board and lodging in the institution always being provided for her. Her hours on active duty are usually from 9 A.M. till 5 P.M., with occasional lectures and classes in the evenings, and visits to the wards in the night.

THE SISTERS.

The chief duties of the sister of a ward are to receive and see carried out the orders of the house physician or surgeon, and to train the probationers working under her. It is the sister who goes round with the house staff and with the visiting staff; who keeps the diet sheet, and makes up the returns of empty beds, &c., of the ward; who reports each morning to the matron the general state of the ward; who receives the patients; who serves the patients' dinners, and gives them their medicine; who generally supervises and is responsible for both the order and the working of the ward over which she rules. The pay of a sister varies from £30 to £60 per annum. Her hours of duty are usually from 8 A.M. till 10 P.M., with three hours in the evening for relaxation.

THE STAFF NURSE.

The staff nurse is generally in charge of about fifteen patients, for whom she actually performs the nursing treatment. Every attention needed by the patients falls to the lot of the staff nurse. Her hours of duty are usually from 7 A.M. till 9 P.M., with two hours off daily. Her pay ranges from £20 to £30 a year.

THE PROBATIONER.

A nurse during her course of training is called a "probationer." Her hours and duties are the same as those of a staff nurse, save that she begins by taking the less complicated and responsible part of the ward work, and has to attend classes and lectures on certain days of the week. Sometimes a probationer is paid from £10 to £15 the first year. At other hospitals she pays £30, or even £50, for her training. The course of training extends over either one, two, or three years. At St. Thomas's Hospital it is one year; at the London Hospital it is two years; and at St. Bartholomew's

Hospital, three years. The age at which probationers are accepted is twenty-five years at the large London hospitals, twenty-two at the chief provincial hospitals, and twenty at some of the children's hospitals. A probationer is not accepted for training if she is over thirty-five years of age, unless she pays a premium. At the London hospitals the premium is a guinea a week, and the probationer must stay at least three months. At University College Hospital it is 12s. 6d. a week ; at St. Bartholomew's it is 13 guineas for three months ; at Salisbury Infirmary it is 10 guineas for two years ; at Canterbury Hospital it is £30 for two years ; at Chichester Infirmary it is 10 guineas for one year ; and at Boston Hospital it is five guineas a quarter.

"NIGHTINGALE FUND" TRAINING SCHOOL FOR NURSES.

In connection with St. Thomas's Hospital is the "Nightingale Fund" Training School for Nurses, which is acknowledged to be the best in the world, and the following regulations for its probationers may, therefore, be taken as typical of those existing elsewhere :—

"1. The committee of the Nightingale Fund have made arrangements for the admission to their school at St. Thomas's Hospital of a limited number of gentlewomen who may desire to qualify themselves in the practice of hospital nursing with the express object of entering upon this profession permanently by eventually filling superior situations in public hospitals and infirmaries, or by nursing the poor at their own homes under some organised system of district nursing.

"2. Candidates desirous of receiving this course of training should apply to Miss Gordon, the matron, at St. Thomas's Hospital, subject to whose selection they will be received into the hospital as probationers. The age considered desirable for these probationers is from twenty-six to, and not over, thirty-six, single or widows ; a certificate of age and other information will be required, according to a printed form.

"3. The term of the probationers' training is a complete year, and they will be received on the distinct understanding that they will remain for that length of time. They may, however, be allowed to withdraw upon grounds to be approved by the committee. They will be subject to be discharged at any time by the matron in case of misconduct or should she consider them inefficient or negligent of their duties.

"Should opportunities occur for affording instruction in some of

the duties of supervision, they will be expected to remain for that purpose for a further period of two or three months, but in that case no further payment will be required.

"4. These probationers will be required to pay towards the cost of maintenance during the year of training the sum of £30, and to give an undertaking to take service for *two* years after leaving the school, in accordance with the 9th clause.

"In exceptional cases, upon payment of a higher sum of £52, to cover the cost of maintenance and also partly of instruction, &c., the undertaking will be limited to *one* year after leaving the school. This modification is made in order to meet the views of some who, while fully intending to take up nursing as a profession, are unable from family or other circumstances to enter into a binding engagement for a longer period.

"It is expected, however, that, unless prevented by some urgent cause, all probationers will, at the expiration of the stipulated period of service, still continue in the work of nursing under the conditions referred to in the first paragraph.

"Occasional vacancies occur for the admission of gentlewomen free of expense, together with, in some cases, a small salary during the year of training. These advantages will be strictly limited to those whose circumstances require such aid.

"5. Payment will be deemed due and be required by two equal instalments, in advance—viz. half on admittance, and half at the end of six months. If the probationer leaves at or before the end of her first month, the first payment, less a deduction at the rate of 20s. a week, will be repaid, but in the event of the probationer afterwards leaving from any cause, she will be entitled to no return. The probationers will be lodged in the hospital, in the 'Nightingale Home,' which adjoins the matron's quarters; each will have a separate bedroom, and they will be supplied with board, including tea and sugar, a weekly allowance of 1s. 6d. for laundress, and with a certain quantity of outer clothing, of a uniform character, which they will always be required to wear when in the hospital.

"6. The probationers will be under the authority of the matron of the hospital, and will be subject to the rules of the hospital. They will receive instruction from the medical instructor and the hospital sisters, and will serve as assistant nurses in the wards of the hospital.

"7. The names of the probationers will be entered in a register, in which a record will be kept of their qualifications. At the end of

a year those whom the committee find to have passed satisfactorily through the course of instruction and training will be entered in the register as certified nurses.

"8. Probationers, on completion of their training, must be prepared to take service on the nursing staff of some public hospital or infirmary, and to continue in similar service, wherever offered to them by the committee, for a period of *two* years at least (this period being limited to *one* year in the case only of those who have paid at the higher rate). As a step to superior situations, they will be expected, as a rule, to accept an engagement as nurse (day or night) at the usual salary, either at St. Thomas's or elsewhere, for the whole or a portion of the first year after leaving the Training School. The committee will be prepared to recommend for suitable engagements qualified probationers who may evince a desire to enter upon district nursing.

"The committee will, in recommending for employment, consult the inclinations of every nurse, as far as a due regard to the special circumstances of each case enable them so to do, and it is expected that she will not terminate any engagement without due notice to the committee.

"Withdrawal from the service may be allowed upon special grounds, family circumstances or otherwise, to be approved by the committee. Nurses will not be expected to go out of Great Britain unless at their own request.

"9. Every probationer will be required at the end of one month from the date of entry into the hospital to sign a written engagement agreeing to abide by these regulations."

The printed form of questions to be answered by the would-be probationer is generally as follows:—

1. Name in full and present address of candidate.
2. Are you a single woman or widow?
3. What has been your occupation?
4. Age last birthday, and date and place of birth?
5. Height? Weight?
6. Where educated?
7. Are you strong and healthy, and have you always been so?
8. Are your sight and hearing perfect?
9. Have you any physical defects?
10. Have you any tendency to pulmonary complaint?
11. If a widow, have you children? How many? Their ages

How are they provided for?

12. Where (if any) was your last situation? How long were you in it?

13. The names in full and addresses of two persons to be referred to. State how long each has known you. If previously employed, one of these must be the last employer.

14. Have you read, and do you clearly understand the regulations?

The duties of probationers under the "Nightingale Fund" are as follows :—

"You are required to be sober, honest, truthful, trustworthy, punctual, quiet and orderly, cleanly and neat, patient, cheerful, and kindly.

"You are expected to become skilful—

"1. In the dressing of blisters, burns, sores, wounds ; in applying fomentations, poultices, and minor dressings ; in the administration of subcutaneous injections.

"2. In the application of leeches, externally and internally.

"3. In the administration of enemata for men and women, and the use of the catheter for women.

"4. In the management of trusses, and appliances in uterine complaints.

"5. In the best method of friction to the body and extremities.

"6. In the management of helpless patients—i.e. moving, changing, personal cleanliness of, feeding, keeping warm (or cool), preventing and dressing bed sores, managing position of.

"7. In bandaging, making bandages, rollers, lining of splints, &c.

"8. In making the beds of the patients, and removal of sheets whilst patient is in bed.

"9. You are required to attend at operations.

"10. To be competent to cook gruel, arrowroot, egg-flip, puddings, drinks, for the sick.

"11. To understand ventilation, or keeping the ward fresh by night as well as by day ; you are to be careful that great cleanliness is observed in all the utensils—those used for the secretions as well as those required for cooking.

"12. To make strict observation of the sick in the following particulars :—

"The state of secretions, expectoration, pulse, skin, appetite ; intelligence, as delirium or stupor ; breathing, sleep, state of wounds, eruptions, formation of matter, effect of diet, or of stimulants, and of medicines. To 'take' the temperature, pulse, respiration.

"13. And to learn the management of convalescents."

OTHER TRAINING SCHOOLS.

There are excellent training schools for nurses attached to the London Hospital, St. Bartholomew's Hospital, Westminster Hospital, St. Mary's Hospital, Charing Cross Hospital, and, in fact, all the big hospitals of the metropolis. At the children's hospitals probationers may enter at an earlier age—from eighteen to twenty-one. In Glasgow the training of nurses is carried on with vigour and judgment at the Western Infirmary, the Royal Infirmary, and the New Victoria Infirmary. The nursing school in connection with the Edinburgh Royal Infirmary has secured a world-wide reputation. There is a good school for nurses in connection with the Adelaide Hospital at Dublin, but in Ireland the Sisters of Mercy frequently take charge of the nursing of the different institutions. Cork Hospital for Women and Children, Aberdeen Infirmary, Manchester and Liverpool Infirmarys, Addenbrooke's Hospital at Cambridge, Pendlebury Hospital for Children, Winchester County Hospital, and Sussex County Hospital have all training schools—indeed, no hospital of repute is without a school of nursing, and it seems invidious to mention the names of some rather than others.

PRIVATE NURSING.

The supply of nurses to private cases is chiefly carried out by private institutions, which are run as speculations by the owners. The nurses receive about £25, and are farmed out at about two guineas a week. Of course the institution has to provide the nurses with board and lodging when they are not attending patients, and ought to look after the nurses when they are ill or beyond work. One of the largest of these private institutions is in New Bond Street, and employs about three hundred nurses. For the first two years these nurses reside at the institution, and are paid £30 per annum without uniform. Afterwards the nurses reside in their own rooms, and pay the institution a commission of 2s. 6d. in the guinea on all fees they receive. This is regarded as one of the fairest of the numerous institutions. At Miss Pollock's Home in Weymouth Street the nurses receive £24, rising to £30. At the nurses' homes in provincial towns the wages vary from £20 to £30. Sleeping accommodation is only provided for about a fifth of the nurses, so that the nurse seldom secures a truly 'home' feeling; her boxes

always stand ready packed, and her room is occupied by others in her absence. The following regulations for nurses sent out to private cases may be taken as typical :—

Private nurses are supplied to families on the following terms :—

	£ s. d.		
First week	2	2	0
Each succeeding week or part thereof ...	1	1	0
Infectious cases	1	10	0

These charges are exclusive of washing and travelling expenses.

All fees to be paid to the lady superintendent.

All laundry and travelling expenses to be paid to the nurse.

The nurse should be allowed not less than eight hours' consecutive rest out of the twenty-four.

Meals to be provided for the nurse in a separate room to that occupied by the patient, and, where practicable, apart from the household.

Applications for nurses, stating the nature of the illness, to be made to the lady superintendent.

Twenty-four hours' notice requested before the return of the nurse.

The hospitals have latterly started institutions in connection with their staff of nurses, and as the nurses are fresh from their training and used to the ways of the physicians who work at the hospital, they have a greater demand for private nurses than they can supply. At the London Hospital the private nurses are paid from £28 to £40, board, lodging, uniform, and part pension provided. At the Middlesex Hospital Institute and at the Hospital for Sick Children in Great Ormond Street the nurses receive a fixed salary, and, over and above this, a proportion of their earnings. Altogether the nurses are far better paid when working for an institution connected with a hospital. A large number of private nurses, especially those engaged on monthly cases, live in lodgings of their own and work for themselves. They can usually make about £100 per annum, but there is considerable worry and discomfort, consequent on having not only their cases, but their business and housekeeping matters to consider. A co-operation of these private nurses has been started, by which, out of a small percentage of their earnings, a central office is maintained, which looks after their business interests and boards and lodges those who desire it.

DISTRICT NURSING.

The supply of nurses to the sick poor is carried on by certain associations supported by voluntary contributions, and has latterly received considerable impulse by the devotion of the Women's Jubilee offering to Queen Victoria to this purpose. The chief centre of this work is the Metropolitan and National Nursing Association, which issues the following rules to its nurses :—

" 1. Every nurse is required to work eight hours daily ; this time to be extended only under exceptional circumstances.

" 2. Nurses shall have eight hours for sleep, and at least two hours of leisure daily. Whenever possible they shall have the evenings entirely at their own disposal, after the hour appointed for their return to the home by the superintendent.

" 3. Nurses are permitted to receive visitors at such hours only as may be specified by the superintendent of the home.

" 4. Nurses will, as a rule, be employed on night duty only under exceptional circumstances, and where due provision can be made for the efficient nursing and care of other cases under their charge.

" 5. Nurses, nurse candidates, and probationers are not permitted to accept presents of any kind from patients or friends of any patients, whether during illness or after death, recovery, or departure.

" 6. Nurses are not allowed, without the permission of the superintendent of the home, to give money or relief of any kind. Whenever money or relief is given it will be notified to the superintendent.

" 7. Nurses will be allowed a uniform dress, in which they are always to appear when on duty.

" 8. Nurses shall be responsible for the personal cleanliness of each patient under their charge, and for the care and cleanliness of the room. Each nurse shall, on every visit, see that the rooms, furniture, and utensils of each patient are clean, or clean them herself.

" 9. Nurses are not to attend confinement cases, either as midwives or monthly nurses, unless when specially set apart for this duty.

" 10. Nurses attending on fever and infectious cases will be subjected to special limitations as to attendance on other cases.

" 11. Nurses on fever or other contagious-disease duty shall change their dress and use the means provided for disinfection before joining the other nurses.

" 12. Nurses shall have a month's holiday in the year."

The plan of work is as follows :—The superintendent personally, or through the honorary secretary, puts herself into communication with the parish doctors and other medical men, practising

among the poor, and residing within a reasonable distance, the poor law authorities, the clergy, district visitors, sisterhoods, Bible readers, and mission women, as well as the Charity Organisation Society, the Society for the Relief of Distress, and other persons or societies working amongst the poor. Applications for nursing service, when received at the home, are at once entered in a register, and, if possible, the case is visited that day by the superintendent with one of her nurses. If the superintendent decides that it is a proper "nursing case," she assists the nurse to put the patient (and, if necessary, also the room) in "nursing order."

Where the case has been sent by a medical man his orders are at once taken, and, when not, the nurse communicates with him and obtains his instructions in writing.

No case is retained on the books which is not under a qualified medical practitioner.

Every nurse visits each of her patients once daily, acute cases *twice*, or even much oftener if necessary—Sundays and week-days alike—and at the same hours, making a regular round of visits, and keeping a record of each case for the superintendent.

Once a fortnight—or oftener if necessary—the superintendent goes round with each nurse to visit every patient on her list, starting with her at the usual hour, and devoting the whole time of "being on duty" to the nurse whose work she is superintending.

The time the nurse stays, and the attention she gives to each patient, depend on the nature of the particular case.

In some cases the relatives of the patients can be taught how to keep the room in "nursing order," how to insure good ventilation &c. In others, no person may be at hand, and the nurse will then have at each visit to do all the work herself.

The nurses are paid £35, rising to £50. They usually reside two or three together in a home, under a trained lady superintendent. In country districts it is now common to have a parish nurse to look after the sick, and she is usually controlled by a committee, on which the local clergy and doctors are represented. She generally receives £50 a year, and furnished lodgings; she has to keep herself and provide her own uniform. The East London Nursing Society, which has done excellent work, in contradistinction to the National and Metropolitan Association does not take ladies as nurses, and each nurse resides in her own district. Every large town—such as Glasgow, Manchester, Liverpool—now possesses its scheme of district nursing, and nearly every village possesses its parish nurse.

Most of the existing institutions are now affiliated with the Queen Victoria's Jubilee Institute for Nurses. Speaking generally, the conditions which admit of this affiliation are :—

1. That nurses shall have had at least one year's training in an approved general hospital or infirmary ;
2. That they should have approved training in district nursing for not less than six months, including maternity nursing ;
3. That nurses in country districts must have at least three months' training in midwifery.

The council are of opinion that the advantages of affiliation will be :—

1. To bring associations into connection with the institute which bears her Majesty's name ;
2. To assist in raising the standard of thoroughly trained nurses for the poor ;
3. To entitle affiliated associations to such aid as the council may be able to give ;
4. To entitle nurses attached to affiliated institutions, who satisfactorily fulfil the conditions of thorough training, efficient work, and unexceptionable conduct, to have their names submitted to her Majesty to be placed on the roll of Queen's nurses.

Branch centres of this work have already been established at Edinburgh, Cardiff, Dublin, and elsewhere.

MONTHLY NURSING.

In every case this special branch of nursing is taught only in return for certain fees—the fees and the length of training varying immensely. At Queen Charlotte's Hospital, Marylebone, the fee for midwives for thirteen weeks is £26 5s. ; the fee for monthly nurses for eight weeks is eleven guineas, or fifteen guineas for twelve weeks. A certificate is given, and midwives are prepared for the London Obstetrical Society's examination. At the British Lying-in Hospital monthly nurses are trained for one month for £7 3s., and midwives for three months for twenty-two guineas. At the Rotunda Hospital, Dublin, nurses are taken as pupils, for a course of six months' training, upon the payment of £20 as "interns," or residents, and £10 as "externs," or non-residents. They receive lectures every morning at the bedside, going round with the doctors and students, and they take their turns on duty in the labour-ward. On Saturdays the nurses and midwives have a special clinical lecture given to them separately by one of the assistant masters. They

are all obliged to wear print dresses and aprons. During their last month of work they are admitted to the gynæcological surgery, where out-patients are seen. There are good schools in this branch at several other London, provincial, Irish, and Scotch hospitals.

NAVAL AND MILITARY NURSING.

Ladies desiring to serve as nurses in the naval or military services must train three years in a good general hospital, and then apply to the Directors-General of the Army or Navy Medical Departments. In making an application, a declaration must be signed by the candidate, stating particulars of age, parentage, education, and previous medical training. The candidate must also produce a recommendation from some person of standing in society to the effect that she possesses the personal tact, temper, and ability qualifying her for appointment, and that she is in every way a desirable person to enter a service composed of ladies of good social position. When these and other conditions have been duly complied with, and she is fortunate enough to obtain an appointment, she will be able, as a nursing sister, to receive a salary beginning at £30, and increasing to £50. A senior nursing sister, acting as superintendent, earns an additional £20. The lady superintendents are now generally chosen from the ranks of the nursing sisters, to whom there is, therefore, some hope afforded of bettering their position. The pay of the ladies who fill these posts averages from £150 to £200 per annum. These sisters are liable to be sent wherever fighting is going on; they also serve at Gibraltar, Malta, Egypt, and other foreign posts.

WORKHOUSE NURSING.

Until lately the nursing of the dying pauper was left not only to untrained women, but very often to imbeciles. The infirmary attached to the workhouse was too often under the control of some one who had no knowledge of sick nursing, and the only aid rendered to the sick was by fellow-paupers. The Workhouse Infirmary Nursing Association has, however, secured radical improvement in this respect, and between 1879 and 1889 it supplied ninety-two trained nurses to different infirmaries. The regulations for probationers desiring to join the association are as follows:—“(1.) Probationers must not be less than twenty-two years of age, nor above thirty. (2.) The usual term of training will be a year. (3.) At

the end of a year probationers will be provided with situations by the association, and for the next three years (*at least*) they will be required to take such posts as the committee will offer to them as day or night nurses, and be considered as members of the association. The salaries at first after training will not exceed £20, with board, lodging, uniform, and washing, in the infirmaries. (4.) Each probationer will have a month's trial before being accepted for the year. (5.) Personal applications to be made in the first instance."

Boards of Guardians, now that they often number women amongst their members, take a more intelligent view of the needs of a sick pauper, and excellent infirmaries have been instituted at Marylebone, Kensington, St. Pancras, Brownlow Hill (Liverpool), Birmingham, and elsewhere—all under trained matrons, and with an efficient nursing staff.

A CHRONOLOGY OF NURSING.

Nursing can be traced back through all ages. In women there have always been "born" nurses; but "trained" nursing in England is a product of modern days, and its history is essentially a history of our own times. Before the year 1840 nurses were almost the worst set of working women; the only points to be settled on engaging a nurse were that she was not Irish and not a confirmed drunkard. "We always engage them without any character," wrote a doctor, "as no respectable person would undertake so disagreeable an office." Every vice was rampant amongst these women, and their aid to the dying was to remove pillows and bed-clothes, and so hasten the end. In the matter of nursing England was far behind the Continent, where, all through the Middle Ages, the Sisters of Charity carefully tended the sick both in hospitals and on the battle-field.

In 1840 Mrs. Fry and Lady Inglis founded the first nursing institution in London at Osnaburgh Square, under the patronage of Queen Adelaide, and at the suggestion of Dr. Gooch and Robert Southey. Its members were called "nursing sisters," and they were paid for their services. The institute still flourishes, in new premises in Devonshire Square.

In 1847 Sir Edward Parry published a request for nurses for Haslar Naval Hospital. They were to be trained at the German Hospital, Dalston, for six months, and, if possible, at the Institute of Deaconesses at Kaiserswerth. There was not one volunteer in answer to this appeal—a striking instance of the lack of enthusiasm

for the work of nursing before Florence Nightingale became the heroine of all England. Under the Bishop of London a Collegiate Institution, to educate and maintain a community of females to act as nurses of the sick poor, was established, but the training given was inadequate. Mrs. Sellon in this year founded the first Anglican Sisters, the Society of the Holy Trinity, at Devonport. Two years later, Miss Lockhart founded the Sisters of St. Mary the Virgin, at Wantage.

In 1848, when the Middlesex Hospital was enlarged, rooms were provided for the "superior nurses"—the inferior nurses, apparently, still coming in with the milk in the morning, as the charwoman does now.

In 1851 Miss Nightingale entered the institute at Kaiserswerth, the working and history of which will be referred to later in this chapter when the Continental systems are described. In the same year Miss Byron, who had trained at King's College Hospital, established a small home for incurables in Margaret Street, which was the seed of the present Nursing Sisterhood of All Saints. At this time also monthly nurses were first admitted for training at Queen Charlotte's Hospital. The first early breath of awakening was stirring the nursing world.

In 1852 Miss Nightingale acted as superintendent of the institute for invalid ladies in Harley Street, and she published her "Notes on Hospitals," and the practical tone of the pamphlet called forth attention in Government circles. Shortly afterwards, when the Crimean war broke out, Miss Nightingale was called upon to organise the care of those wounded in this war, and in November 1854 she and a staff of nurses disembarked at Constantinople and proceeded to Scutari, where they undertook the nursing. The story of Miss Nightingale's work is an oft-told tale, and need only be lightly touched on here. In 1856 a sum of £40,000 was subscribed for her by a grateful public, and the next year she expressed her desire to found with this sum a training school for nurses, a committee being formed to carry out this project. In 1854 Mrs. Charles Monsall founded the society of St. John the Baptist at Clewer, and in the next year Dr. Neale founded the Nursing Sisters of St. Margaret, at East Grinstead.

In 1853 a nursing sisters' home had been started at St. Barnabas', Pimlico, and in 1856 Mrs. Wardroper had been elected matron of St. Thomas's Hospital, and had greatly improved the nursing there. In 1857 the Sisters of St. John's House, with Miss Mary

Jones at their head, undertook the nursing of King's College Hospital and removed to Norfolk House to be near their scene of labour.

In 1859 the first district nurse began her work in Liverpool at the instigation of Mr. W. Rathbone, M.P. This was the beginning of a movement which was to grow beyond all that was then imagined.

In June 1860 was opened the "Nightingale Fund" School for the training of nurses, in connection with St. Thomas's Hospital. It was governed by principles formulated by Miss Nightingale, and it was founded by her generosity. From then till June 1890 this school trained 1,005 candidates; the system of training is explained elsewhere. In this same year Miss Nightingale published her "Notes on Nursing."

In 1861 the London Diocesan Deaconesses Association was set on foot for nursing the sick poor; and the first probationer was received for training at St. Mary's Hospital under Mrs. Wright, who had been matron for ten years. The probationer received board and lodging, but no salary, for twelve months, at the end of which period she was given a written testimonial.

In 1862 Miss Nightingale established a training school for midwives in connection with King's College Hospital, the General Nursing Institute in Covent Garden was founded, and also the Bristol Training Institution at Richmond Terrace, Clifton. On January 18 of this year a meeting was held at Liverpool, with the object of starting a training school and home for nurses in connection with the Royal Infirmary. This was the sprouting of that small seed we saw sown three years before. The Mayor of Liverpool was in the chair, and to him Florence Nightingale had written:—

"Sickness is everywhere; Death is everywhere. But hardly anywhere is the training necessary to teach women how to relieve sickness, to delay death. We consider a long education and discipline absolutely necessary to train our medical men; we consider hardly any training at all necessary for our nurses, although, how often does our medical man himself tell us, 'I can do nothing for you unless your nurse will carry out what I say!'" Thus was started the first great provincial training school. Sisters were first appointed over the wards in the Great Ormond Street Hospital for Children, though Dr. West had had good nurses there since 1852 working under his rules.

In 1865 Miss Agnes Jones and twelve nurses from St. Thomas's Hospital undertook the nursing of the Liverpool Workhouse Infirmary and became pioneers in the scientific nursing of sick

paupers. In this year were founded the Leicester Nursing Institution, the Manchester Sick Poor and Private Institution, the Derby and Derbyshire Nursing and Sanitary Association, and two training schools in Dublin. Enthusiasm on the subject of nursing was spreading rapidly.

In 1867 the Deaconesses Institution was founded at Tottenham by the Rev. W. Pennefather, and the Norwich Staff of Nurses and the Hampshire Nurses' Institute commenced work. Mrs. Bromhead founded the Lincoln Institution, and a nurses' home, containing sixty cubicles, was erected at the Middlesex Hospital.

In 1868 Miss Agnes Jones died at Liverpool from typhus fever—the first martyr amongst the workhouse nurses. Her loss was a severe blow to the cause. Mrs. Ranyard, partly as a memorial to Miss Agnes Jones, added to her staff of Bible women at Adelphi Terrace some women trained for six weeks as nurses, and called Bible nurses. They work gratis amongst the poor. The East London Nursing Society was founded during this year, chiefly by the efforts of Mrs. Stuart Wortley, whose object was to secure the skilled nursing of the sick poor in their own homes. Probationers were now first received at the Middlesex Hospital.

In 1869 Mrs. Deeble was appointed first superintendent of Her Majesty's Nursing Sisters, whose duty it is to nurse the sick soldier both in peace and war. Mrs. Deeble's head quarters were at the new Netley Hospital, and she took with her there six Nightingale probationers to act as ward sisters. Miss Torrance and a staff of nurses were during the summer put in charge of the Highgate Union Infirmary. A nursing branch of the Mildmay Deaconesses was started at Newington Green, and Birmingham appointed a district nurse. Miss Emily Ayckbourn founded the Sisters of the Church at Kilburn—an Anglican order who add nursing to other charitable works.

In 1870 Guy's Hospital awoke to a sense of disgust with the scrubber as nurse, and supplied for each ward of twenty-four beds a sister, a day nurse, a night nurse, and a probationer. There was little or no training, and the probationer could become a nurse after six months' experience. Edinburgh Royal Infirmary had been content with the scrubber also to this date, but now turned to the Nightingale system for help in re-ordering its nursing department. Three Bible-women nurses began work at Swansea. Miss Florence Lees went out to Metz to nurse the wounded, and subsequently had charge of the Ambulance Hospital at Homburg.

In 1871 the Staffordshire Institution for Nurses was founded at Stoke-on-Trent; Sheffield Nurses' Home, Stratford-on-Avon Home, Bucks Nursing Home, Newcastle-on-Tyne Nurses' Home, and Bradford Nurses' Institution were also started about this time. Hull, also, appointed a district nurse. In fact, the nursing institutions multiplied so rapidly that it is impossible to mention more than the chief.

In 1873 the Royal Berks Hospital commenced a nursing school, an example which was shortly after followed by other provincial hospitals, including Leicester, Winchester, York, and Norwich. A training school for nurses was commenced at Renfrew Street, Glasgow, the St. Alban's Diocesan Institution for Trained Nurses was founded, and the Clapham Institution began work during this year.

In 1874 a code of nursing rules was drawn up for St. Mary's Hospital by Mrs. Wemyss Anderson, under which probationers were to be paid a small sum in future for their services, and certificates were to be given at the end of two years. The dormitories were enlarged, and a sitting room for nurses provided. A somewhat similar system of nursing was organised at the London Hospital, a training school for midwives and nurses was founded at Queen Charlotte's, and the Westminster Training School, in connection with the hospital of the same name, was started. In fact, the year 1874 was one of great activity amongst the metropolitan nursing schools. At King's College Hospital, which had been nursed for seventeen years by the Sisters of St. John's House, differences arose between the nursing staff and the committee, and the Press brought the whole story before the public. St. John's House supplied the nursing staff to the hospital at an inclusive charge of £2,000; the committee complained that the nurses were not their servants, and the sisters complained that the ward maids were not their servants; the divided authority was found difficult. But Lords Selborne and Hatherley came forward as mediators, and the disagreement was patched up for the time being. St. John's Sisters at this time had the nursing of Charing Cross Hospital, the Hospital for Sick Children at Nottingham, and the Galignani Hospital in Paris. They had ever been pioneers in nursing work, and Miss Nightingale had chosen six of them to accompany her to the Crimea.

This year also saw the foundation of the National and Metropolitan Nursing Association in Bloomsbury Square. Its object was similar to that of the East London Nursing Society—the care of

the sick poor in their own homes. Miss Florence Lees, a lady distinguished for her nursing work alike in England, France, and Germany, was appointed first superintendent, and chose to have to work under her only those who were ladies by birth and education. Lady Strangford was foremost in promoting this association.

The Cambridge Home for Nurses was founded during this year, and so also was the Ipswich Nurses' Home, by Miss Agnes Rye.

Our nurses were not unmindful that charity does not end at home, for during the Franco-Prussian war Miss Byron and some of the All Saints' Sisters had gone to the scene of battle. Miss Florence Lees and Lady Pigot were also volunteers at the front, and the latter received the ribbon of the Legion of Honour, whilst the former was decorated with an order from the Empress Augusta.

In 1875 two nurses went out to the Zanzibar Mission, where one died of fever, and in 1876 Miss Johnston and five nurses went to Bucharest to nurse the wounded Servians. No need for nurses ever became manifest now but what Miss Nightingale's example was followed, and women were found to volunteer for the work. The Guild of St. Barnabas for Nurses was started about this time. The Order of St. John of Jerusalem had helped the foundation of the Metropolitan and National Association, and was interesting itself greatly in nursing work. Series of nursing lectures, and lectures on first aid to the injured, were found to be very popular, and called, and are calling, the attention of many men and women to the noble profession of nursing.

In 1877 the Sisters of All Saints established an institution for private nurses, in Fitzroy Street; and in October the Mitchell Nurses' Home at Torquay was opened, though a district nurse had been working there for four years. St. Bartholomew's Hospital during this year set its nursing department in order. Rules were formulated, and probationers were first taken for systematic training, Sir Dyce Duckworth delivering the opening address.

In 1878 was founded the Sarah Acland Memorial Home for Nurses, at Oxford, and it was opened early in the following spring, with a staff of five nurses. The Saint Deny's Community of Nursing Sisters was founded at Warminster, and has since supplied nurses to India and our other colonies. The East Grinstead Nursing Sisters were also hard at work, chiefly amongst the poor in places where epidemics appeared. Most English sisterhoods have given their members some training in hospital work of late years, and then employed them as nurses. During 1878, also, the Royal Free

Hospital was enlarged, and rooms were provided for an adequate nursing staff. The Cornwall Nurses' Home and the Harding Nursing Institute were founded, and Miss Marsden and four sisters went out to Bulgaria to nurse the Russian wounded.

In 1879 Miss Louisa Twining, and a committee, founded the Workhouse Infirmary Nursing Association, which during ten years has trained 108 probationers, and supplied 288 fully qualified nurses to different union infirmaries. Bangor Nursing Institute also was founded. In the autumn of this year the Baroness Burdett-Coutts and the Stafford House Committee sent a staff of trained nurses to Ladysmith in the Transvaal to attend our wounded. Shortly afterwards the Government sent Mrs. Deeble and a staff of army sisters to Pretoria on the same mission. Miss Burt, who successfully organised a training school for nurses at Leicester Infirmary, transferred her services to Guy's Hospital, where the nursing was falling somewhat behind the times.

In this year also Miss Florence Lees married the Rev. Dacre Craven, and Miss Mansel became superintendent of the National and Metropolitan Association.

In 1880 arose the great crisis at Guy's Hospital—the second great quarrel in the nursing world. The first had been between the committee of King's College Hospital and the sisters of St. John's House ; the second was between the committee and medical staff of Guy's, and the subject of dispute was the new *régime* of nursing inaugurated by Miss Burt. The committee of Guy's had suddenly removed the old matron and nurses, and the medical staff were confronted with a new organisation of nursing formulated without their advice or attention to their needs. The consternation of the doctors was great when they found strange faces beside every bed, and rules which allowed the head nurse to be absent during the doctor's daily visit. The storm broke when a paper by Miss Lonsdale appeared in the *Nineteenth Century*, in which she not only decried the old system of nursing, but, unfortunately, also put forth such opinions as the following :—"A doctor is no more necessarily a judge of the details of nursing than a nurse is acquainted with the properties and effects of the administration of certain drugs." "I ask, are not practices and experiments indulged in by medical men, and permitted by them to the members of medical schools, which it is understood had better not be mentioned beyond the walls of the hospital?" Miss Lonsdale had only been six weeks at Guy's under the new rules, and her paper was not calculated to soothe the ruffled feelings of the medical

staff. It is scarcely worth while to refer to this old scandal, save to point out how necessary it is that the doctor should be recognised as the chief person to whom the nurse is answerable. Unfortunately, one of the new nurses at Guy's gave a feeble patient a bath without orders, which caused his death. A verdict of manslaughter was returned, and the nurse committed to prison. As may be imagined, it was long before the medical staff grew reconciled to trained nursing when it was so roughly thrust upon them, but under a new matron new rules were instituted, and the training school for nurses at Guy's is now second to none, and works with the utmost smoothness. During this year the North London District Nursing Association (a branch of the Central Home in Bloomsbury) was established, as was also the Portsmouth Nurses' Association. The *Lancet* newspaper appointed a commission to inquire into Workhouse Infirmaries, and the terrible effects of having paupers to act as nurses were made manifest.

In 1881 the Westminster Training School was opened on improved and enlarged lines, as a memorial to Lady Augusta Stanley, who had ever taken the deepest interest in the Westminster Hospital. The Metropolitan and National Nursing Association started a new branch at Paddington. Miss Baynes, of the Clewer Sisterhood, was appointed superintendent of the Lady Canning Memorial Home at Calcutta, for the need for nurses in India was coming to the fore. Miss E. Vincent and thirteen nurses from St. Thomas's were put in charge of the new Marylebone Workhouse Infirmary, and a training school was founded there. The Midwives' Institute and Trained Nurses' Club was founded. Miss Anna Maitland and Mrs. Chiene started a district sick nursing home at Edinburgh.

In 1882 there was war with Egypt, and Her Majesty's Nursing Sisters were employed not only at the Egyptian ports, but also on board the hospital ship *Carthage*, which conveyed the wounded back to Netley. At the London Hospital the first certificates were presented to nurses, and probationers were first received for a few months on payment of a guinea a week to cover the expense of their board and lodging. The Jersey Institution, the Southport Nurses' Home, and the Sydenham Nursing Association were established.

In 1883 Queen Victoria founded the Order of the Royal Red Cross, for the purpose of rewarding women who give special service to those wounded in war. The decoration consists of a red Maltese

cross, bearing the words "Faith, Hope, and Charity," and is worn on the left breast. In May of the same year the Queen personally presented it to thirty ladies, including the Princess of Wales, Princess Beatrice, Princess Christian, the Duchess of Teck, the Hon. Lady Wantage, Miss Nightingale, Mrs. Deeble, and several of the English and French sisters who had nursed in Egypt and the Transvaal. Miss Hamilton and two nurses went to Alexandria to undertake permanent work. A home for nurses was opened at Rome, with a staff of three American and two English nurses. The Cambridge Institute and the South London Nursing Association were started. Miss Lloyd, head of St. John's House, owing to some differences with the hospital authorities, founded the Order of St. John the Divine in Drayton Gardens, leaving the sisters of the old house to be known as the St. John the Evangelist Nurses. This necessitated the reorganisation of the nursing of King's College Hospital, which was carried out by Miss Monk.

In 1884 Miss Alice Fisher went to Philadelphia to establish the nursing school at Blockley; Miss Crisp went to Auckland and instituted trained nursing in New Zealand; and Mrs. Swinney went for the second time to Africa on nursing and mission work combined. The Frome Nurses' Home and the Liverpool Southern Hospital Institution were established, and the nursing of Hampstead Infirmary was handed over to the Workhouse Infirmary Nursing Association.

In 1885 we were again at war in Egypt, and nurses were sent to the front, not only by Government, but by the National Aid Society. The sisters also served on the hospital ship *Ganges*. Lady Dufferin's fund for providing medical women and trained nurses for India was founded. The Hamilton Association for supplying trained male nurses was established by Miss Jane Hamilton. The Kensington District Nursing Association commenced work. The Clothmakers' Company instituted a handsome gold medal to be given to the nurse who yearly headed the examinations at St. Bartholomew's.

In 1886 the Prince and Princess of Wales opened the Nursing Home of the London Hospital, which provides for the staff one hundred separate bedrooms and suitable common rooms. The Preston and County of Lancaster Royal Infirmary Nursing Association, and also the Barton-on-Humber District Nursing Society, were founded. In September Sister Dora, a woman of strong character, who had for years ruled the Walsall Cottage Hospital, and was a most

capable nurse, died of cancer. The story of her life was written by Miss Lonsdale, and so aroused popular enthusiasm that money was subscribed and a statue of Sister Dora erected at Walsall.

In 1887 four nurses went to Poona to join the Wantage sisters who were working there. Lady Roberts founded a fund for supplying homes in the hills for Indian nurses, and also, later on, for supplying nurses to India. The Middlesex Hospital, the Sussex County Hospital, and Winchester Hospital started private nursing institutions; Guy's, St. Bartholomew's, and nearly all the leading London and many provincial hospitals had already started this natural adjunct to their training schools. Her Majesty's Nursing Sisters had long since been put in charge of the wards of the naval hospitals, their head quarters being at Haslar under Miss Hogg, and they were now permanently posted at Gibraltar, Malta, and other ports abroad. In August the Queen announced her intention of devoting the Women's Jubilee offering to the cause of nursing the sick poor. In October the National Pension Fund for Nurses* was founded, with the object of providing for nurses in sickness and old age. Miss Byron, superior of the nursing Order of the Sisters of All Saints, died, and it was determined to build a convalescent home to her memory at Eastbourne. The Royal Free Hospital commenced lectures, examinations, and certificates for nurses. It has been impossible to give the dates at which every hospital set its nursing in order—sufficient only to mark the growth of trained nursing are given; but it must here be mentioned that Edinburgh, Glasgow, Dublin, Liverpool, Manchester, Birmingham, and all the great towns had been aroused to take a full and lively interest in the question of skilled attention to the sick. In Ireland the nuns have charge of many of the hospitals, but at Cork and elsewhere there are good training schools for lay nurses.

In 1888 a lady superintendent and seven sisters were sent to Rawalpindi, and a superintendent and five sisters to Bangalore. A home for lady nurses was opened at Murree. Sir Sydney Waterlow organised a nursing home at Cairo. A home was also opened at Alexandria. The Great Northern Hospital, London, was opened on new premises, with new and improved nursing arrangements. Hereford Infirmary, Hull Infirmary, Salop Infirmary, and Glasgow Royal Infirmary opened nurses' homes—the last containing eighty-five cubicles. Nursing institutes were established at Sunderland,

* Full particulars of this Fund will be found in the Appendix to Volume I., pages 671 to 676.

Bournemouth, Taunton, and in connection with Fitzroy House Home Hospital. An Order of Deaconesses for East London was founded. The Birmingham New Infirmary and the Devon and Exeter Hospital were put in the hands of trained nurses. The nursing of Charing Cross Hospital was taken from St. John's House, which, however, at the same time took over the nursing of the Metropolitan Hospital. Miss Haynes, trained nurse, sailed for Barbadoes. Miss Broadwood set on foot a scheme for cottage nursing in Surrey villages, but the nurses are not fully trained.

In 1890 the Royal Free Institution was founded. Mrs. Malleeson and others started the Rural Nursing Association, which provides villages with fully trained district nurses. The nursing world had lost some of its brightest members about this time—notably Miss Fisher, of Philadelphia, Miss Storey, of Gosport, Mrs. Bromhead, of Lincoln, Miss Hughes, of Cairo, and Mrs. Higginbotham, founder of district nursing in Glasgow. Miss Marshall sailed for Fiji, and Miss Mollett for Johannesburg, for trained nursing is becoming a necessity all over the world. In July the Princess of Wales became President of the National Pension Fund for Nurses, which the Queen commanded should henceforth be called Royal. The merchant princes and citizens of London gave £50,000 to the Donation Bonus and Benevolent Funds of the Royal National Pension Fund for Nurses, Mr. Junius S. Morgan and his family contributing £20,000. Miss Peter commenced the work at Edinburgh as the first superintendent of the Scottish branch of the Queen Victoria Jubilee Nurses. Eight extra nurses were sent to India by Lady Roberts. The nurses of Wigan Infirmary first received certificates during this year, and those of Birmingham General Hospital received silver medals.

In 1890, also, a Welsh branch of the Queen Victoria Jubilee Nurses was established at Cardiff. Sister Rose Gertrude went to Molokai to nurse the lepers; some nuns from King William's Town went to Bechuanaland to found a hospital, and a staff of sisters sailed for Hong Kong Government Hospital. In July, the Princess of Wales presented at Marlborough House certificates to the first thousand nurses who had joined the Royal National Pension Fund. The Butterworth medals for nurses of long standing were instituted at Guy's; and certificates were first given to the nurses of Chichester Infirmary.

This list almost sounds as though we were overrun by nurses, and all had been done for them that is necessary; to prove that it

is not so we quote the following from the report of the Halifax Infirmary, which is only now being replaced by a new building :—
“Half the nurses have to sleep in one room on the ground floor, which is dark, ill ventilated, and very much overcrowded.” The chronology of nursing for many years to come should be one long list of new homes and training schools and institutions.

PART II.—AMERICA AND THE COLONIES.

I.—UNITED STATES OF AMERICA.

So far back as 1790 Dr. Seaman used to lecture to a class of twenty-four nurses at New York Hospital, but at his death, unfortunately, this good habit was abandoned. Many of the American hospitals were then nursed by Catholic sisters, in whose hands also was any little district or private nursing that was done. In 1838 the Society of Friends founded a nurse society at Philadelphia, the Puritan spirit of the States rising in rebellion at the power of the Sisters of Mercy. St. Luke's Hospital, New York, has been nursed since its foundation in 1853 by a Protestant Order of nurses, and a similar Order has had care of the Syracuse Hospital for fourteen years ; these deaconesses also do private and district work. In 1873 the first modern training school was established at the Bellevue Hospital, New York, Sister Helen, of King's College Hospital, going out to superintend and start it. The example thus set was promptly followed by Boston, New Haven, Philadelphia, and other towns. The rules of Bellevue, being similar to those in force in the best training schools of the States, are given here :—

“The committee of the training school for nurses has made arrangements with the authorities of Bellevue Hospital for giving two years' training to women desirous of becoming professional nurses.

“Those wishing to obtain this course of instruction must themselves apply to the superintendent of the training school, 426 East 26th Street, New York, either in person or by letter, upon whose approval they will be received into the school for one month on probation. The preferable age for candidates is from twenty-five to thirty-five years. The applicant should send, with answers to the paper of questions, a letter from a clergyman testifying to

her good moral character, and from a physician stating that she is in good health. During the month of trial, and previous to obtaining a position in the school, the applicant must be prepared for an examination in reading, penmanship, simple arithmetic, and English dictation. The examination is to test the applicant's ability to read aloud well, to write legibly and accurately, to keep simple accounts, and to take notes of lectures. This amount of education is *indispensable* for a member of the school, but applicants are reminded that women of superior education and cultivation, when equally qualified as nurses, will be preferred against those who do not possess these advantages.

"The superintendent has full power to decide as to their fitness for the work and the propriety of retaining or dismissing them. She can also, with the approval of the committee, discharge them at any time in case of misconduct or inefficiency. During the month of probation the pupils are boarded and lodged at the expense of the school, but receive no other compensation. They are not expected to wear the uniform of the school, but must come provided with dresses of washing material for use in the hospital. All clothing must be plainly marked.

"Those who prove satisfactory will be accepted as pupil nurses, after agreeing to remain two years in the training school for nurses, and to obey the rules of the school and hospital.

"They will reside in the home, and serve for the first year as assistants in the wards of Bellevue Hospital; the second year they will be expected to perform any duty assigned them by the superintendent, either to act as nurses in the hospital, or to be sent to private cases among the rich or poor.

"The pay for the first year is \$7 a month, for the second year \$12 a month. This sum is allowed for the dress, text-books, and other expenses of the nurse, in connection with her work, and is in no wise intended as wages, it being considered that the education given is a full equivalent for their services. They are required, after the month of probation, when on duty to wear the dress prescribed by the institution, which is of blue and white seersucker, simply made, white apron and cap, and linen collar.

"The day nurses are on duty from 8 A.M. to 8 P.M., with an hour off for dinner, and additional time for exercise or rest. They are also often given an afternoon during the week, and have a right to the half of Sunday. A vacation of two weeks is allowed each year."

Four years after the school was founded a nurses' home was built, with sixty-four separate bedrooms. In 1880 the nurses were earning \$8,000 a year for the home by private nursing. In 1888 nearly 400 applicants applied to be trained, though there were only forty-seven vacancies. In this year was established in connection with the school a registry for nurses, from which private nurses can be obtained who take their own fees, merely paying a registration fee to the office. Six of the Bellevue nurses work gratuitously amongst the poor under the City Mission, and three are employed by Churches in the city. A school for male nurses, built by Mr. D. C. Mills, was opened lately, with accommodation for fifty persons. Out of 113 applicants, twenty-two were selected, and handed over to the female nurses to be trained.

The nurses of St. Luke's Hospital, Chicago, train for two years, and receive excellent lectures from the medical staff; and weekly classes are held by the superintendent (Miss K. L. Lett). Nurses are on duty from 8 A.M. to 8 P.M., with an occasional break of two hours; they are supplied with a uniform, and with a small salary to cover expenses but in nowise intended as wages. There are twenty-three nurses in the school, which number must shortly be increased to thirty-eight to provide for the nursing of the Johnston Memorial Hospital. The demand for private nurses exceeds the supply. The past and present nurses have lately banded themselves together to form a "Blue Cross Association" to help one another in times of sickness. The nurses of St. Luke's lately adopted an outdoor uniform of grey cloak, bonnet, and veil. This is the first time the independent American woman has voluntarily accepted a uniform, and the step is significant of how the spirit of English nursing is spreading abroad.

It is impossible to give particulars of all the schools in the States, of which there are nearly forty. We hear of one in Columbia, one in San Francisco, three in Boston, three in Philadelphia, four in Brooklyn, and so forth, the pioneer city, New York, heading the list with five schools, and making provision for 229 pupils. The excellence of the training received by the pupils in this city and elsewhere is testified to by the large and increasing demand for their services as private nurses, and also as superintendents or assistant superintendents of hospitals. At present this demand largely exceeds the supply, as is shown by the reports of the schools. With regard to the candidates for admission to the schools—as far, at any rate, as the larger and better known ones

are concerned—the position is reversed, the number of applications being far more numerous than the vacancies to be filled up.

The pupils go through courses of lectures on hygiene, physiology, anatomy, obstetrics, and the principles of nursing and care of the sick; and periodical examinations test the progress of each student and her fitness for the work on which she has entered. During the first year her practical work is confined entirely to nursing in the hospitals, but after entering upon her second year she may be sent to attend private cases, at the discretion of the superintendent.

As to age of admission, most of the schools take pupils between twenty and forty years of age, but some do not take any who are under twenty five or over thirty-five. In nearly all cases the number of years required for the full course of training is two; in three it is one and a half, and in the Philadelphia Lying-in School it is given as one. In four, at least, there are no instructors of the sterner sex; one of these, the Boston City Hospital Training School, having no less than fourteen lady lecturers. At the school in connection with the San Francisco Children's Hospital, again, there are ten female and only three male instructors; the respective numbers of male and female teachers in all the schools together being 162 and 80. Paying probationers are almost unknown in the States, but have lately been introduced into two hospitals, and the plan is likely to spread.

The history of midwifery training schools in the States is highly interesting. In 1832 a lying-in charity was established at Philadelphia, and six years later this was merged into a nurse school with eight pupils. In 1863 provision was made for a separate home for the pupil nurses, and still later a small hospital was established. There are about a dozen nurses now connected with this charity, and some hundreds of applications for their services are received annually. The Missouri School of Midwifery was established at St. Louis in 1875, and trains nearly twenty pupils yearly. At Brooklyn there is a school in connection with the Homœopathic Maternity Hospital. The course lasts one year, and includes instruction in the care of infants. New York boasts a college of midwifery where instruction is given in all civilised languages. Three months of lectures and demonstrations are followed by three months of practical work, and then, if an examination which is somewhat severe is well passed, a diploma is granted. The fee for the course is one hundred dollars.

There are no nursing institutions in America; the women

there are too "cute" not to receive their own earnings, so every large town possesses a nurses' registry or directory. The first of these was opened in Boston in 1879, and was soon followed by one in Philadelphia, chiefly at the instigation of Dr. and Mrs. S. Weir Mitchell. The directory issues an "application blank" for nurses, which requires a statement of the name, age, address, qualifications, kind of nursing preferred, rates of charge, and both medical and family references. If the replies from the persons referred to are satisfactory, the nurse is registered on the payment of a fee of five dollars. Moreover, detailed inquiries are sent, both to the physician and the family, after every engagement is terminated, and the nurse's character and skill are thus kept registered up to date. The doctor, or person requiring a nurse, applies at the directory, and pays a fee of one dollar, in return for which he gets the address of a nurse suitable to his needs. If the directory finds and sends a nurse, an additional dollar is charged. The directory has nothing to do with the rates charged by the nurses, beyond registering them for the information of applicants, and seeing that the nurses do not charge more than the registered rate; they may charge less if they like. At first these fees of nurses and patients did not cover the expenses of the office, but latterly the directory has increased its scheme, and is now a financial success. Similar directories are to be found in Washington, Cincinnati, Toronto, Buffalo, and San Francisco. Where they do not exist, the private nurses work on their own account, and make a large income, but the life is lonely and isolated. The usual charge is about three guineas a week; on the Philadelphia Directory, for instance, nurses are registered to receive fees varying from ten to thirty dollars a week. The Brooklyn Nurses' Directory charges the nurse a fee of five dollars to register, and two dollars each succeeding year.

Mention must be made of the Red Cross Society of the States, at the head of the nursing department of which is Miss Clara Barton. During the War, in the presence of epidemics of small-pox and other infectious diseases, and at the time of the late outbreak of yellow fever in Florida and the floods in Jacksonville, this association has been to the fore in providing for the needs of the sick. During the War the absence of "training" on the part of the nurses was sadly felt; but the lesson then taught was taken to heart, and now the Society can always supply nurses who are used to discipline and skilled in their vocation. When Miss Clara Barton and her staff returned from Jacksonville they were awarded a public reception on

a magnificent scale, and all the municipal officers of Washington vied in expressing praise of their services.

The nursing of paupers in America is much the same as in England—that is to say, it is in a state of transition. In 1884, the State Charities' Aid Association laid it down as an axiom that "no feeble, intemperate, or disabled person should be allowed to attend on the sick, and there should always be at least one good paid nurse in every poorhouse." In the same year, the Board of Guardians of the Poor in Philadelphia established a training school for nurses in connection with the hospital department of the Blockley Alms-houses. Miss Alice Fisher went out from England and organised the nursing system most successfully, and her example has spread and is still spreading, though she died at her post in 1888. In 1891 a movement was set on foot to establish a National Pension Fund for workers amongst the sick in the United States on the model of the Royal National Pension Fund for Nurses of the British Empire.

2.—AUSTRALASIA.

Nursing is somewhat behind the times in Australia, and systems of training are only now being introduced. Turning to Melbourne Hospital first, which is a huge building, we find that the nurses are recruited from any class, and during the first year of service have much scrubbing to do. There is no nursing home, and there are no lectures. The hours are from 7 A.M. till 9 P.M., with half a day off once a week. In 1885 a proposal was made to introduce trained nursing, but it met with opposition from the committee. In 1890, however, a trained matron was appointed to rule over the eighty-three untrained nurses. Probably this is the commencement of some system of nursing. The Alfred Hospital, Melbourne, has a good training school attached; the following rules were accepted by the committee in 1889:—

1. That the period for nurses under training be extended from one year to two years.
2. That for the first six months the pupil nurses be termed "probationers"; for the second, "pupils;" and after the first year, "nurses."
3. That the various grades be distinguished when on duty by a distinctive badge or dress.
4. That during the term of training each nurse shall perform night duty for at least six months, not necessarily consecutive.

5. That for the first six months of her probation the pupil sha'l not receive any payment ; but if at the end of that term she passes a primary examination, she shall receive for the second six months pay at the rate of £20 a year ; for the third six months, at the rate of £25 a year ; and for the fourth six months, at the rate of £30 a year.

6. That the foregoing salaries be paid on the distinct understanding that no extra pay will be allowed for any special or night duty that the pupil may be required to perform.

7. That the pay of assistant nurses, other than pupils, shall commence at £35 a year, and increase at the rate of £2 10s. annually up to £45 a year.

8. That the pay of head nurses shall commence at £50 a year, and shall increase at the rate of £3 for two years, and £4 for the third, up to £60 a year.

There are two classes of nurses at the Alfred Hospital : those who live in the hospital, and those who live outside and come to work from 8 A.M. till 5 P.M. The latter pay a small sum for their teaching, which includes excellent lectures. There are about forty "intern" nurses, who have pretty rooms to themselves, and are well cared for and well fed. The hours, however, are long, amounting to eighty for six days, and the work is hard. At the women's hospital the nurses are not well trained, and the medical staff early in 1889 reported thus :—"We desire to point out that some of the nurses lately engaged are not sufficiently proficient in the special requirements necessary in a hospital of this nature, and we recommend that the nurses employed for special operation cases shall be permanently engaged in the hospital, in order that their experience may be increased, and a healthy competition for success encouraged amongst them." There are twenty-one nurses, and their hours are from 6.30 A.M. to 8.30 P.M., with two hours off every alternate day.

At the Homœopathic Hospital, the medical staff lecture to the nurses. There is a district nursing home in Melbourne with two nurses attached, who do good work, but not in a very systematic manner. There are two nursing institutions in Melbourne, and the recognised tariff for private nurses is £2 a week, or £3 for infectious or mental cases.

Turning to Sydney, we find an excellent training school at the Prince Alfred Hospital, which is one of the best managed of the Australian hospitals. It holds 200 beds. The nurses are of good

status, and are trained for three years. The medical staff, matron, and sisters, all work for the systematic instruction of the probationers, with the result that, at the Women's Industrial Exhibition of 1889, the nurses took two gold medals for their skill in bandaging, &c. To render the course of training complete, a series of invalid-cooking demonstrations is given annually. The Children's Hospital, Glebe Point, is ruled by a trained matron, who carefully instructs the nurses under her. At the Sydney Hospital nursing has yet to win its way; there is a want of understanding and appreciation of the nurse's work that is very trying to the patients. At Phillip Street, Sydney, is a nurses' home, the staff of which is largely recruited by trained nurses fresh from England. The following regulations for the nurses show the scope of the work done :—

“The nurse will be paid as follows: she will receive free board and lodging, washing, and uniform, and a fixed salary of £26 per annum, paid quarterly, and in addition an allowance of 10s. per week, or £1 in infectious cases, while on active duty. This allowance is *not* paid for gratuitous nursing among the sick poor while the nurse resides at the home.

“Each nurse enters into an agreement with the committee for a period of one or two years, which may be renewed if found desirable. Any nurse breaking her engagement will forfeit a quarter's salary. The committee, however, reserve the right of dismissing a nurse at any time for neglect of duty, misconduct, breach of the regulations, or other sufficient cause.

“She must be ready to attend on any case of sickness when directed by the matron; and while on active duty she must either live at the home, or in the house of the patient, or in lodgings provided for her, as may be directed. She must devote the *whole* of her energy to her duties as nurse, and must not undertake any domestic duty out of the sick-room which can as easily be performed by others. Care will be taken that she receives proper treatment; at the same time, she must be willing and obliging to her employers, and friendly with the servants of the house.

“A full report of her behaviour will be demanded both from the doctor in charge of the case and from the head of the household; and any complaint will be strictly inquired into.

“Trained nurses are sent to any part of the colony on application to the matron either personally, or by letter or telegram. The rate of payment for each nurse is £2 2s. per week, and £3 3s.

in infectious cases, typhoid fever being included among infectious cases."

In connection with this home there is a district nurse, who visits about a hundred cases in the year. The St. Vincent Hospital is nursed by the Order of Roman Catholic Sisters of St. Vincent de Paul. At Adelaide, two or three English nurses who have emigrated have lately inaugurated trained nursing. On the island of Tasmania, trained nursing has been introduced at Hobart and Launceston by two ladies who went out from Edinburgh.

According to the Hobart Town General Hospital Act of 1878 the following are the conditions of training there for probationers, or "junior nurses," as they are called :—

"Applicants for appointment as junior nurses must furnish to the lady superintendent, in writing, satisfactory testimonials as regards education and moral character, and if approved must undergo an examination by the house surgeon, and satisfy him as to health and physical fitness for the duties of the situation. They must then enter upon their duties on trial for two months, and if the result of such trial prove satisfactory to the lady superintendent, an agreement binding the applicants for two years shall be entered into by the Board, on the following terms, namely: That the person so bound shall serve in the said hospital in the capacity of a junior nurse for the term of two years, inclusive of the two months' trial, and shall during that period submit to all the rules and regulations of the hospital applicable to the nurses, and to all constituted authority within the hospital.

"She shall receive remuneration at the rate of £20 for the first year's service, and £25 for the second, together with board, lodging, washing, medical attendance, and uniform in each year, and be treated in every respect as a junior nurse of the hospital; the board of management, on its part, undertaking to see that a regular system of training and instruction in nursing shall be given. And on completion of her agreement such junior nurse shall, on receipt of a certificate of service from the lady superintendent, be entitled to present herself to the medical committee of the board for examination as to competency; and on receipt of a satisfactory certificate of proficiency from the medical committee, the candidate shall be entitled to receive a formal certificate or diploma from the board in proof of her length of service, training, and efficiency; and she shall, upon obtaining a certificate or diploma, be eligible for promotion on the nursing staff of the hospital."

The hospital contains 118 beds ; there are five sisters, and each sister acts as night superintendent in turn for three months. The nursing staff varies from eighteen in slack times to twenty-five in fever times. There are two ward-maids to each floor. The same system is in force at Launceston General Hospital, which has thirteen nurses to ninety-four beds.

3.—BRITISH GUIANA.

Throughout this colony the nursing system is behind the times. The nurses are engaged, apparently, without having had any previous training whatever, but learn what they can in the hospital. At the Berbice Hospital, the average number of day and night nurses is twenty-nine, exclusive of the supervising officers ; and their salaries vary from \$10 to \$38 per month. There is no pension fund.

At the Berbice Asylum there are forty-two attendants (thirty male and twelve female) and 440 patients—i.e. about one attendant to every ten patients. All these attendants are on duty during the day, excepting one night-watch on each side. They are selected from applicants belonging to the general labouring population, and there are no means of specially training them, though at first they are only engaged "on probation," and pick up what they can while so employed. There are some elaborate rules for their guidance.

At the Georgetown Hospital there are fifty-three nurses, or about one nurse to nine patients. The head nurse receives \$45 per month, and the salaries of the rest vary from \$14 to \$24 a month.

At Essequibo there are "no probationers. Two nurses. No training. Ten dollars per month. No pension fund."

At the Leper Asylum there are eighteen attendants, in three classes.

4.—CANADA.

The hospitals of Canada used to be entirely nursed by sisters of charity, mostly of the Order of St. Vincent de Paul, and the sisters still have charge of many of the chief hospitals, including the Hôtel Dieu and Notre Dame in Montreal ; the General Hospital, Sacred Heart Hospital, and St. Jean de Dieu Asylums in Quebec ; the General Hospital at Ottawa ; and also the leper settlement at Tracadie. But in several of the new hospitals the modern system of nursing by lay nurses has been introduced, and

private nurses are daily emigrating from England to take care of the sick amongst the rich.

In 1881, a graduate from the Bellevue Hospital and sixteen nurses undertook the nursing of the General Hospital, Toronto, and since then this has grown to be the greatest of the Canadian training schools. It had in 1889 over fifty pupils. The practical work is taught at the bedside by the matron and senior nurses, and the pupils pass in rotation through the medical, surgical, obstetrical, and special wards. Every week there is a lecture from one of the medical staff, the subjects embracing physiology, anatomy, infectious fevers, gynæcology, and first aid. Pupils are received for the month on trial, and have to pass a simple examination in the "three R's." If this is satisfactory, they sign an agreement to stay two years, and at the end of that time they receive a certificate and a silver badge. The nursing-home is all that can be desired, with separate bedrooms, good library, and dining room. The Hospital for Sick Children at Toronto is now managed by a nurse trained at the General Hospital. A new Royal Victoria Hospital is being built at Montreal, to which a training school on a similar system to the above will be attached. There are eight schools in Canada, including a large one at Winnipeg.

With regard to private nursing, there are nursing institutions at Montreal and Quebec managed by English superintendents; the nurses are paid £37 a year. Lady Stanley is building a fine institution at Ottawa. Directories, where nurses register their qualifications on the American system, also exist at Montreal, Quebec, and Toronto. Also, the sisters of charity go out to nurse private cases. All three systems—the English, the Continental, and the American—find a home in Canada. Private nurses working on their own account earn from £1 to £3 a week, but, as a rule, they find the climate very trying. There is a good opening for nurses in the rapidly growing cities of Canada and British Columbia.

It seems only just to say a word or two about the nursing of leprosy. Here, as elsewhere, the Roman Catholic Church has been foremost, though it is twenty-five years since some Moravian deaconesses from Germany took charge of the leper hospital at Jerusalem. But the tale of Tracadie is typical of what the Sœurs de Charité have done in this direction. About 1866, Dr. Bayard, of Tracadie, was going over the Hôtel Dieu, at Montreal, and openly contrasting its cleanliness with the filth of the lazaretto of the province from which he came. The sister who was acting as guide listened in silence, but afterwards

sought the superior, and told her of Dr. Bayard's remarks. The superior came to Dr. Bayard, and asked him to ascertain if the Government would let the sisters take charge of the leper station. The authorities accepted the offer, and three sisters were asked to volunteer for the dangerous and difficult work. Each nun in the place offered her services, but three only were chosen, and they at once embarked on their work. They abolished compulsory entrance, and employed, instead, persuasion ; they did away with all dirt and all bolts and bars ; they separated the males and females, and provided them with employment ; they laid out a garden ; they made the desert to blossom as a rose. Similar work to this has been carried out at Trinidad, Ecuador, Madagascar, and on the island of Molokai, which has been made famous by the death of Father Damien, and where the Franciscan sisters still labour in silent abnegation.

5.—CEYLON.

The nurses here are trained and paid by Government. They are of both sexes. The males are trained under the supervision of the physician and surgeon of the hospital ; the females, under the supervision of a lady superintendent trained at St. Thomas's Hospital, London. There is a theoretical and practical training for nurses at the De Soyza Lying-in Hospital, under the superintendence of the lady superintendent, and at the end of this course certificates are granted for midwifery and practical nursing. The Civil Medical Department of Ceylon, in their regulations for pupil nurses, state that candidates must be between sixteen and thirty years of age, and able to read fluently. They are on duty about twelve hours a day, wear a uniform dress and apron, and at the end of a year's service are entitled to a certificate on passing a slight examination.

6.—GOLD COAST COLONY.

Thorough reorganisation is here necessary. At present the arrangements for nursing seem to be remarkably bad. At Accra, nurses of both sexes are employed, but at the other hospitals there are only male nurses, who have absolutely no instruction or training before taking up their duties. They are generally engaged in the first instance merely as messengers, and they then work their way up as vacancies arise. The salary in all cases is £24 per annum for males ; and, at Accra, £18 for females. It is not even necessary

that they should have a thorough knowledge of the English language. They are admitted if they can only speak a broken kind of *patois*.

There is no pension fund.

7.—INDIA.

Not many years ago the nursing of Indian hospitals was entirely in the hands of ward-boys and unskilful ayahs. The earliest attempt at training nurses was the Canning Home for Nurses, established in memory of Countess Canning, whose husband was Viceroy about thirty years ago. The home is under the charge of the Sisterhood of St. John Baptist of Clewer, and carries out the plan of supplying trained nurses to the Europeans of Calcutta, a work in which Lady Canning was interested till her death, in 1861. The probationers are trained at the European General Hospital, and the sisters have charge of the wards there. Some of the Warminster and Wantage Sisters followed in the steps of the St. John Community, the Wantage Sisters taking charge of the Poona Hospital in 1884. It was in that year that the Queen-Empress commended the matter of further medical aid for the women of India to the Countess of Dufferin, who promptly founded the National Association for supplying female medical aid to the women of India, which is commonly known as Lady Dufferin's Fund. Not the least part of the work of this association is the training of native nurses, carried on at all the hospitals, such as the one at Oodeypore, where facilities are offered. In 1886 the Cama Hospital, in Bombay, was opened under lady doctors, who immediately commenced to train native women of all castes as nurses. Two of these are in charge of the hospital at Baroda, and give complete satisfaction to the doctors. In 1887, Lady Nora Roberts called attention in letters and articles to the absence of skilled nursing in the military hospitals in India, and to the high rate of mortality amongst our troops, particularly in enteric fever cases, where nursing is all-important. In 1888 the Government despatched a first detachment of Indian Sisters, consisting of a lady superintendent and seven sisters, to Rawalpindi, and a superintendent and five sisters to Bangalore. The following are the conditions :—

“ 1. The nursing establishment is to consist of two grades, viz. :—

(1.) Lady superintendents.

(2.) Nursing sisters.

" *Note*.—For convenience's sake, the term 'lady nurse' is used in the following paragraphs where it is intended to include both the above grades.

" 2. Nursing sisters must be, at the time of appointment, over twenty-five years of age, and in sound bodily health.

" 3. The duration of a term of service, for both grades of lady nurses, shall be five years, capable of renewal for a further five years at the option of the Government, with the consent of the lady nurse.

" 4. The engagement may, however, be terminated at any time on six months' notice being given, either on the part of the Government or of the lady nurse.

" Rates of Pay.

(In addition to free quarters, fuel, light, and punkah-pullers.)

			Rs.
" 5. For a lady superintendent	...	...	400 per mensem.
For a nursing-sister	...	...	175 "

commencing from the date of embarkation for India.

" Family Remittances.

" 6. Lady-nurses are entitled to make family remittances to England through Government at the official rate of exchange, the annual limits of such remittances being £100 for lady superintendents, and £70 for nursing sisters.

" Leave.

" 7. After engagement for a second (five years') term of service, a lady nurse may be granted one year's leave from duty, on two-thirds pay, with free passage by sea and rail from and to her station. Such period will not reckon as service in any way.

" Leave in India will only be granted at the discretion of the Government.

" Gratuities.

" 8. The following rates of gratuities will be payable to lady nurses on completion of their total Indian service:—

		Lady Superintendents. Rs.	Nursing Sisters. Rs.
For a completed term of five years	...	1,200	500
" " " ten "	...	4,000	1,500

	Lady Superintendents Rs.	Nursing Sisters. Rs.
If compelled by sickness to leave India before completion of a five years' term, for each completed year's service ...	200	75
If compelled by sickness to leave India after completion of a first term of five years' service, but before completion of a second, for each completed year of the second five years' term ...	240	100

in addition to the gratuity for the completed term of five years, as shown above.

"9. No gratuity will be given for service terminated by any other cause than sickness or the completion of the terms of five and ten years' service.

" Passage, &c.

"10. Passage at the public expense, subject to a deduction of 2s. a day for living while on board ship, will be granted to lady nurses when proceeding to India on appointment, when returning home on leave (under paragraph 7), on completion of a term of service, or if invalided home before the completion of a term. They will be entitled to carry 6 cwt. of baggage. Lady nurses will also be entitled to travelling expenses by rail on the above occasions from their places of residence in England to port of embarkation, and from port of disembarkation in India to destination in that country, and *vice versa*.

"11. An outfit allowance on first appointment will be made at the rate of £25 for each lady superintendent, and £15 for each nursing-sister.

"12. Lady nurses must be prepared to embark, if necessary, not later than thirty days from date of appointment."

Lady Roberts supplemented the efforts of the Government by establishing homes in the Hills for the nursing sisters; the first was opened at Murree, with three nurses and an Officers' Hospital in connection with it. A little later, when an appeal was made to Government to send out more sisters and refused by the India Office, Lady Roberts, by the aid of her cleverly organised fund, was enabled to provide eight sisters—two each for Meerut, Meean Meer, Bareilly, and Lucknow. The death-rate at Murree from typhoid fever is said to have been reduced since the introduction of the

sisters from 52 to 17 per cent. Lady Roberts is building another home for nurses at Quetta, and there are numerous volunteers for work ready to commence action as soon as the home is finished. In time, all the military hospitals of India will be nursed by trained sisters.

At Hyderabad, the Nizam has ever been ready to welcome improvements from England, and has introduced scientific nursing at the Afzul Gunj Hospital, and native nurses are being trained there under an English matron.

8.—MALTA AND GOZO.

The nurses are carefully selected from the general unemployed labour of the islands, and are ordinary paid officials at various salaries, under the superintendence of the sisters of charity and the house surgeons of each institution. There are no volunteers, but a few benevolent individuals occasionally co-operate in nursing the sick poor. The nurses are male and female, and do duty in the male and female divisions of the hospitals respectively, taking charge of every description of cases that may be admitted therein. The proportion to the patients under treatment is that of one to every ten. They are not trained for their work previous to their engagement, but, when taken on the establishment, instruction is given to them by a medical officer lately appointed by Government for that purpose. The system followed is that of the London hospitals, modified and adapted to the class of nurses procurable in these islands.

The rate of wages varies from 1s. to 2s. 2d. per day, and pensions are allowed only to such of the nurses as are borne on the "fixed establishment." Those pensions are regulated according to the Superannuation Act of the Imperial Parliament, and paid out of the general revenue of the islands. In reading the instructions for the guidance of the officers and servants of the charities of Malta and Gozo, it is rather embarrassing to find that the nurses are not allowed to wear beards; and of the porter it is written, "she shall lock the outer gates at sunset." Apparently, the ordinary duties of men and women may be reversed on these islands. Lately three of Her Majesty's Naval Nursing Sisters have had charge of the Naval Hospital at Malta, carrying out there the system of nursing which is taught at Haslar.

9.—SOUTH AFRICA.

The modern system of nursing is springing up rapidly in the mushroom-towns of Cape Colony. A sandy hillock one year is an important town the next, and in the following year there are a hospital and nurses. At Kimberley Hospital a training school which has already sent forth certificated pupils to half a dozen institutions is managed by the Bloemfontein Sisters. The training is for one year, and a certificate is given when it is completed. The pay during training is small. There are Kaffir boys to do the rough work. There are seven ward nurses, and they have under them staff nurses and probationers. The hours are from 7.30 A.M. to 9 P.M., with two hours off duty. The nursing home is quite distinct from the hospital, and contains separate bedrooms and a common sitting-room. There are seven nurses who go out to private cases, this being the first institution in Cape Colony in which such an arrangement is in force. The nursing at the Somerset Hospital, Cape Town, is performed by the All Saints Sisters. In 1888, three trained nurses were appointed to manage a temporary hospital at Pretoria, while a large general hospital was being built. The Barberton Hospital, which treats 300 patients yearly, was at first under a nurse trained at Pretoria, but is now under nurses who have been trained at Kimberley. At Johannesburg there is a nursing home and institution with seven nurses (five from England) and two probationers. The nurses attend private patients, and one is specially engaged in district work amongst those who are too poor to pay for her services. A temporary hospital to hold sixty beds, erected by Government at Kimberley, is nursed by Catholic sisters on the old system, but it is probable that when the permanent building is erected the doctors will insist on having trained nurses. There are a good many private nurses working on their own account in South Africa, and often charging £3 a week for their services.

PART III.—CONTINENTAL SYSTEMS.

IN the past, and to a great extent at the present time, the nursing of the sick on the Continent has been in the hands of religious sisterhoods, especially the Sisters of St. Vincent de Paul. Still, the work of the deaconesses must not be forgotten. They began to flourish

in the third century A.D., in the fourth and fifth they declined, and in the eighth century they were entirely superseded by the sisterhoods. During the Middle Ages monks and nuns were the only people who professionally nursed the sick. In the eighteenth century paid lay nurses began to work, and in the nineteenth century came the revival of deaconesses, for whom fifteen institutions were founded between 1836 and 1852. During the last ten years nurses of no special religious denomination, but merely trained women working for a livelihood, have become common on the Continent, and have largely displaced the sisters.

I.—AUSTRIA.

In Austria the nursing is far behind the times. Vienna, which is famed for its progress in the science of surgery, is in bad repute on account of its lack of progress in the art of nursing. In the *Allgemeines Krankenhaus*, which contains 2,000 beds, there are 250 nurses ; but there is no matron, and no system of training. The nurses are engaged without characters, and they generally leave without any. They wear untidy red-check blouses and dresses, but no caps or aprons. Since there is no system whatever in this hospital, it is impossible to explain it. We can only echo the formal protest which Father Eichorn made to the committee in the autumn of 1888 :—"The nursing is bad ; it must be improved."

The Rudolph Stiftung, at Vienna, is fairly well nursed, but on an extraordinary system. The Catholic Sisters of the Servantes du Sacré Cœur have charge of the wards and the different departments. There are seventy of them, and they are answerable to the head of their Order alone. There are also thirty-five nurses who are of no special creed, and who are solely answerable to the doctors. The cleanliness and order of the wards leave nothing to be desired, but the nurses and sisters, though kind, are not skilled, save by long experience. No effort is made to teach them their duties, but they are well housed and fed, and are respectable.

The Rudolfinerhaus, at Vienna, is nursed by eighteen Red Cross Sisters, assisted by six probationers, who are taken for a month on trial, so that their fitness for the work may be tested. If they remain they receive during the first year, board, lodging, dress, and 12s. a month. The remuneration is increased in the second year to 30s. a month, and in the third year to 40s. a month. The Red Cross Sisters are drawn from all ranks of society, the refined and

better educated being selected where a choice is possible. Their dress consists of a blue-and-white striped washing costume, with a blue-edged shoulder cape, a white muslin cap without strings, and a white apron. A white band, on which a red cross and inscription have been stamped, is worn on the left arm, and the brooch has also on it a red cross. The probationers are similarly dressed, with the exception of the cape, badge, and brooch, which are gained only after three years' service, and which constitute them as Red Cross Sisters. Lectures are given to the nurses, and the training is excellent. The Sisters of the Red Cross also nurse the Elizabeth Hospital, at Buda-Pesth, the superintendent sister there being a lady of title. The arrangements are similar to those before described, and probationers are received for training. At the large general hospital at Pesth there is no system of nursing, and all is disorder.

In Austria also work the Brothers of Mercy, an Order which has charge of most of the men's hospitals, and also carries on a complete and unique system of district nursing. Besides nursing in the homes of the poor, the Brothers tended in 1888 in their own special hospital 4,140 sick people, of whom 257 died, 3,980 were healed, and 639 were sent back to their homes much improved in health. They tended each patient on an average for $15\frac{1}{2}$ days; and of the 4,140 so nursed, 427 were day labourers, 312 brewers' workmen, 282 shoemakers, 198 coachmen and stablemen, 172 millers, 175 butchers, 168 workers of steam machines, besides many of a better class, such as doctors, chemists, teachers, clergy, and missionaries, who sought their help.*

2.—BELGIUM.

The nursing of the patients in the Belgian hospitals is undertaken by sisters of the various religious bodies, all of whom learn nursing as part of their ordinary duties. They are known collectively as *Les Sœurs Hospitalières*. The individual nurses are appointed by the mother superior of the convent to which they belong, subject, of course, to the approval of the *Commission des Hospices Civils*. Their salaries vary considerably, and in some cases they are not paid at all. At the hospitals of St. Pierre and St. Jean, at Brussels, they received in 1883 an indemnity of 7,700 francs, but as their number is not stated, it is impossible to give the average salary received. The indemnity was the same in 1888. At Nivelles, it

* We are indebted for many of these particulars to Mrs. Brewer's papers on *Hospital Nurses*.

is fixed at 500 francs a year. The junior sisters are taught a certain amount of elementary practical chemistry, so that they may be able to dispense prescriptions in case of need.

The following regulations obtaining at Nivelles are of importance in this connection :—

The government and domestic administration of the hospital will be entrusted to persons who will take the name of *dames de charité*.

The duties of the *dames de charité* will be all gratuitous, the establishment only being obliged to provide them with lodging, dress, and board. A uniform is prescribed. The installation of each member elect, either as novice or *dame de charité*, is made by the hospital commission or one of its members. After having read the present list of regulations and all other arrangements now, or hereafter to be, made by the administration, the member elect promises to comply therewith immediately, and to spare no attention or effort to fulfil the object of her profession.

Persons anxious to devote their lives to the service of the sick must apply in writing to the Commission Administrative des Hospices, who will obtain all the necessary information, to make sure that there is no reason against their admission, that they enjoy a strong constitution, and that they combine all the other qualities requisite for due fulfilment of the work for which they apply.

The *dames de charité* will be subjected to a year of probation, during which they will wear their own dress, without in any case being entitled to claim any salary whatever.

If at the end of the year they persist in their original intention, they will address a fresh application to the hospital commission, who, after consultation with the “*Administrateur particulier*,” will decide whether or not to admit them finally into the number of “*les dames de charité*.”

No one can be made a *dame de charité* before the age of twenty, or after thirty. Exception to this rule will only be made on substantial grounds, recognised as being for the good of the establishment.

At Verviers the sisters receive no salary, but each is allowed an annual indemnity of 200 francs for her wardrobe. There is no retiring pension.

3.—DENMARK.

At the Kommünehospital, in which the nursing system is best arranged, and in which the nurses who later can be engaged for private cases through the Red Cross Society are educated, the system, as it has been since 1876, is the following :—

A chief physician or surgeon has 100 to 120 beds, with from 80 to 100 patients as a rule, half of this number being for men, and half for women. Each of these divisions has nine nurses attached to it, viz. :—

One chief nurse, or “Plejemoder.”

Six assistant nurses, or “Plejersker” (assistants).

Two “*elever*.”

The chief nurse, who has 700 kroner—rising to 800—a year and free “station,” lives in the hospital, and has to see that all the sick-nursing is properly conducted. In operations she assists the surgeons in various ways, by seeing that the different lotions, dressings, &c., are right. In the Kommünehospital and the Frederik's Hospital, the surgical chief nurses prepare the antiseptic dressings, sublimate, carbolic, iodoform gauze, &c.

The chief nurses are only chosen from among those who are well educated, “so that they may be called ladies, ‘Damer.’”

The assistant nurses, “Plejersker,” attend to the patients in accordance with the directions of the chief nurse and the doctors, and assist in the daily visits to the patients. Each assistant nurse has a ward with a number of patients; or, rather, having in view the arrangements which are sometimes in force, two assistant nurses have two wards. Each has a fee of 20 kroner per month and free “station,” and is chosen from the middle class of the people, but not before she is known to have aptitude for the profession. These assistants help the chief nurse in training the “*elever*,” or those who subsequently become assistant nurses. “*Elever*” from the Red Cross, and nurses for the country, are also trained in the wards, so far as the limited accommodation admits. During the day six assistant nurses and two “*elever*” are on duty, but at night there are only two assistant nurses.

A new Frederik's Hospital (the University Hospital) is being planned, and a school for nurses enters into the scheme.

When a private patient in the town desires a nurse, he can obtain one of the Red Cross nurses by applying to the proper

bureau. Those nurses are all trained at the Kommünehospital. Since 1887 the Red Cross association has made arrangements at Copenhagen for helping sick people by giving them useful information, and subsequently the Marine Officers' and other societies have followed its example. The basis for the information given is usually Esmarch's well-known little book "First Help."

The Red Cross Society gives gratuitous training to policemen, pupils of the school of navigation, and others, by the agency of two well-known junior surgeons. Ten "séances" of an hour and a half or two hours' duration make up a course, and after the theoretical lesson, practical exercises are held in bandaging, transport of patients, &c.

The Red Cross nurses are largely employed in the different provincial towns, and in the event of war they will all be employed in the military lazarets.

The Danish Red Cross Society has only once been engaged outside of Denmark, namely in the Turco-Russian war of 1877-8; but it is in association with the different foreign sections of the Red Cross Society, and part of its annual report is published at Geneva in the "Bulletin International des Sociétés de la Croix Rouge."

4.—FRANCE.

The nuns, in spite of many vicissitudes, have ever held sway in France, and the work they have done within turbulent Paris, where they have been frequently subjected to insult, has been splendid. We will first consider the Deaconesses, who are but little known. Eighty years before St. Vincent de Paul founded his famous Sisterhood, the Prince of Sedan instituted "Demoiselles de Charité," who had a regular organisation and rules, but were exempt from vows or uniform costume, and worked amongst the sick poor. In 1841 Pasteur Vermeil opened a house of Sisters of Charity of the Reformed Church at Paris. Applicants were received without very distinct regulations, and were trained in teaching and nursing. They wore a uniform dress, and nursed both rich and poor. By 1852 there were thirty Deaconesses in this institution, but the Order has not increased or spread to any great extent in France.

The first active Order of Catholic Nursing Sisters, the Hospitalières Hôtel Dieu, was founded in 1097. These Sisters followed the rule of St. Augustine, and were appointed to the care of the Hôtel Dieu at Paris. We learn that in 1217 the staff consisted

of thirty-eight monks and thirty-five nuns. A novitiate of twelve years was required. In the seventeenth century this Order was greatly improved under the rule of Madame Geneviève Banquet, who served throughout the period of the plague, and made the duties to the sick her special care. These Dames of St. Augustine also had charge of the hospitals of St. Louis, La Pitié, and La Charité. The Order of the Filles de Marthe was established in 1443, and nursed chiefly in Burgundy. The Order of Ursuline Sisters was founded in 1537.

For many of the following particulars we are indebted to the *Encyclopédie Théologique* :—

The Order of St. Vincent de Paul, founded in 1633, is the largest order of nursing nuns, and the work done by them has been enormous. Madame Le Gras was the first Superior, and she obtained permission to work in the Hôtel Dieu, visiting the patients, reading and praying with them and providing them with extra nourishment. Anne of Austria obtained some of the Sisters to nurse in the military hospitals during the siege of Dunkirk, and the Queen of Poland sent for some when the plague appeared at Warsaw. Madame Le Gras also took charge of a lunatic asylum, and worked a wondrous change within its melancholy walls. The Order grew rapidly. In 1789 it had 426 houses in France, and some in Poland, Austria, and Silesia, and throughout the Revolution it maintained its organisation by special decree. It was also sanctioned by Napoleon, and in 1847 the Sisters numbered between 6,000 and 7,000, and were working in Smyrna, Alexandria, and many other widely separated localities. At present the Sisters are engaged in over 300 hospitals scattered over Europe and America, and they are also to be found in the Italian Hospital in London. Those who wish to enter the Order are received without dower. During six months' probation they work in their own dress, before entering on a novitiate of five years. Even then they are only allowed to take simple vows for one year, and to renew them annually. Very notable are the words of St. Vincent de Paul in founding this uncloistered Order:—"Your convent must be the hospital; your cell, the ward; your chapel, the parish church; your cloister, the streets of the city; your rule, the vow of obedience; your grille, the fear of God; your veil, holy modesty."

In the seventeenth century was founded, by Frances de Blosset, the Order of the Filles de Ste. Geneviève, who made sick-nursing their special object. They were driven from their work early in

the Revolution, but returned to it afterwards. In 1621 the Hospitalières de Loche were introduced by Abbé Bouray into thirteen hospitals. In 1624 a shepherdess founded the Order of Hospitalières de la Charité de Notre Dame. In 1630 the Congregation de la Miséricorde de Jésus was founded at Dieppe, and now has charge of several French and Canadian hospitals. The Hospitalières de la Flèche were established in the seventeenth century and worked in several hospitals. The Sœurs de Charité de St. Maurice and the Filles de St. Charles Borromeo were both powerful Orders, the latter having care of the civil and military hospitals, and being now in charge at Coblenz and Trèves. In 1679 Madame Tulard founded the community of Sisters of Charity at Eoron, and in 1720 was started the Order of the Bon Sauveur at Caen. In 1739 the Filles de la Sagesse were organised by Louis Grignon. They had charge of all the Toulon hospitals in 1802, and were afterwards called to Boulogne, Cherbourg, Nantes, and Antwerp. The Sœurs de St. Joseph go to the colonies, whilst the Dames de la Ste. Trinité had care of most of the military hospitals at the beginning of this century. In 1810 was started the Order of the Dames du Bon Secours, for nursing the poor at their own homes. This work is also carried on by the Little Sisters of the Assumption. During the Revolution 255 communities of women were dissolved in France by the laws of February 1790 and August 1792; but even under the Terror and the Directory these laws were relaxed in favour of the nuns engaged in nursing. The revival of the Orders at the Restoration was the occasion of many improvements; but under the Republic they have been strongly discouraged. Under the Orleanist monarchy six religious Orders were responsible for the nursing in Paris. The Augustines reigned at the hospitals of La Charité, Saint Louis, La Riboisière, and L'Hôtel Dieu. The Sisters of Sainte Marthe nursed at St. Antoine, La Pitié, and Beaujon; the Sisters of St. Vincent de Paul at Necker and Ste. Eugénie; the Sisters of Compassion at Lourcine; the Sisters of Ste. Marie at Cochin; and the Sisters of St. Thomas at the Enfants Malades. The much-coveted ribbon of the Legion of Honour has been given to thirty-four women, of whom twenty are nursing Sisters.

In 1877 the Municipal Council of Paris, on the proposition of Dr. Bourneville, agreed to institute a Municipal School for nurses, male and female, and Dr. Bourneville was appointed first director. A few months later the Assistance Publique opened two training

schools for these nurses at Salpêtrière and Bicêtre, and two years later at La Pitié. The course of training lasts a year, and the nurses have to attend theoretical and practical classes. The theoretical course includes seven subjects—hospital administration, anatomy, physiology, minor surgery and dressings, hygiene, pharmacy, and monthly nursing. These classes are held twice a week, in the evening. Each lecturer gives eighteen lessons, and requires from his hearers essays on two given subjects. The practical classes are held almost daily. A diploma is awarded to the successful pupils at the end of a year. It was hoped by this excellent scheme to provide nurses with greater knowledge of surgery and physiology than the Sisters of Charity possessed; and also nurses who would not attempt to proselytize amongst the patients, and who would give undivided duty to the doctors. It must be confessed that with all their devotion and sweetness the Sisters had fallen behind in skilful nursing; their thoughts were half for the patients' souls, their duty was half to their religious superior. The doctors wanted women wholly in *their* service, and whose attentions to the patients' bodily needs would thrust aside all other thoughts. The period of transition, however, is always a trying one. When the Assistance Publique first introduced lay nurses, to the number of 491, they obtained their recruits from amongst domestic servants out of place, dismissed shop-girls, and a like class. The nurses were paid from fifteen to twenty francs a week, and were given lodging, food, and uniform, but they were by no means satisfactory. They drank the patients' wine; they demanded tips; and they are even accused of having drunk the spirit in which the doctors preserved their specimens! Yet these nurses were all true to their posts in 1870, when an epidemic of small-pox passed over Paris. The doctors lectured to the nurses; they published an excellent series of manuals for their instruction; but in spite of all efforts the complaints against the lay nurses whenever they superseded the Sisters gave rise to much dissatisfaction. The laïcisation, or replacing of nuns by nurses, took place at the following dates at the Parisian hospitals: Salpêtrière and Bicêtre, 1877; Laennec, 1878; La Pitié, 1880; La Rochefoucauld, Des Ménages, and St. Antoine, 1881; Lourcine and Tenon, 1882; the Incurable Hospital and Cochin, 1885; the Necker, Enfants Assistés, and Enfants Malades in 1886; the Trousseau, Lariboisière, and Beaujon in 1887; and La Charité in 1888. In 1889 the decree which banished the Sisters from the

Parisian hospitals was repealed, and they were free to undertake nursing wherever their services were wanted. Now at the Hôtel Dieu a Sister in full canonicals reigns over each ward, but under her are certain lay nurses. The excellent scheme of training which the lay nurses receive from the Assistance Publique—including as it does a first course of general education, such as reading, writing, and arithmetic, a second course of practical instruction such as we have already described, and a third course of rotation, or serving in each department of the hospital, including the linen room, &c.—ought to turn out in time a body of nurses of the first class. But though there is daily improvement, the consummation is not yet reached. No one can walk through the French hospitals and not notice the absence of the excessive neatness, brightness, and cleanliness for which English and American hospitals are famed. There appear to be no flowers, no paintings, no pride taken in bright tins and instruments, and no scarlet capes for the patients. It is obvious that neither religious nor lay nurses in Paris have yet become so interested in their wards as to make them both dainty and beautiful, though in some of the provincial towns—at the new hospital at Havre, for instance—this spirit is beginning to work.

The rules of the Assistance Publique are as follow :—

I.—*Hours on Duty.*

1. The inspectors, sub-inspectors, and assistants for the day are on duty from 6 A.M. until 8 P.M. Where, however, there are one or more sub-inspectors or assistants, besides the inspector-in-chief, it is permissible to establish a relief watch, to take duty from 6 to 8 in the evening in rotation.

2. The inspectors, sub-inspectors, and assistants for the night are on duty from 8 P.M. to 7 A.M. the following morning. These officers receive from the ward inspectors all written or verbal communications relating to the patients. The relief of the night duty takes place under the same conditions. A special memorandum is kept of this double relief of duty.

II.—*Meal Times.*

3. The times and durations of the meals are also regulated. Half an hour is allowed for the first meal, between a quarter past 7 and a quarter past 8 in the morning. An hour is allowed for the second meal. The time of it is fixed by the respective directors of

the institutions, according to the necessities of the household. An hour is also allowed for dinner between 5 and 7 P.M.

4. The inspectors, sub-inspectors, and assistants do not take their meals at one and the same time. They are divided into two parts, and take their meals in succession. The food is given out at the time of each meal.

5. In each institution one room used as a refectory shall be put at the disposal of the inspectors, sub-inspectors, and assistants who shall care to take their meals there.

III.—*Leave of Absence.*

6. In all the institutions the inspectors, sub-inspectors, and attendants for the day can freely go out each day at 8 o'clock in the evening, and return by a quarter past 10.

The inspectors, sub-inspectors, and assistants can also go out during the time for the second meal for the purpose of making purchases for the household.

7. One weekly holiday is allowed to the inspectors, sub-inspectors, and assistants, provided that they return by 11 P.M., that they have previously informed the executive, and that they never make this holiday coincide with the hours of public admission.

8. Exceptional permission can be given in special cases, but such permission is only valid when signed by the director of the institution.

9. In cases of urgency, when the patients' needs demand it, the director of the institution can suspend the holiday.

IV.—*Accommodation for Inspectors, &c.*

10. It is not permissible to employ as servants people in the service of the hospital. It is also not permissible to employ a servant coming from outside unless by special authority from the director for the administration of the poor law.

11. Inspectors and sub-inspectors take their meals in their respective apartments or in the refectory. They must not carry them into the wards. The same rule applies to assistants, to whom apartments can be assigned.

12. The apartments must be kept in a good state of cleanliness. The director will ascertain this in the interest of the institution and of the general health.

13. Inspectors, sub-inspectors, and assistants shall not be

allowed to receive visits while they are on duty, unless with the consent of the director of the institution.

14. Only the husband and young children can live in the apartment of the inspectors, sub-inspectors, and assistants. For every other person it will be necessary to secure the warrant of the director for the administration of the poor law for a permanent residence. For casual residence warrants will be issued by the director of the institution.

15. Persons who are authorised to stay with the inspectors, sub-inspectors, and assistants must conform to the rules laid down in art. 6, relating to egress and ingress. Strangers who are visiting the institution must leave before 10 o'clock in the evening.

V.—*General Regulations.*

16. An example of punctuality, diligence, and care for the patients and pensioners is a duty that the inspectors, sub-inspectors, and assistants owe to the staff placed under their orders.

17. It is forbidden them to accept any gift from the patients, the pensioners, or the families of the same. They may not take care of any deposit of money, jewels, or valuables coming from the patients, or pensioners, or people of the household.

18. The regulation uniform is obligatory in the interior of the institution, but it may not be worn outside in the evening or on holidays. This applies to all the inferior officials who are resident.

Of late years nursing institutions, in no way religious, have been founded in Paris, Nice, Mentone, and other places, where trained nurses can now be had on payment of fixed sums. Two societies of ladies for relieving wounded soldiers have lately been formed: *Les Dames de France*, of which *Maréchale MacMahon* is president, and *Les Femmes de France*, of which *Madame Koechlin-Schwartz* is president. During war these two associations supply nurses and certain delicacies to the ambulances.

In conclusion it may be interesting to refer to two women who represent respectively the lay and the religious nurses. Both of the following stories are true.

Madame Coralie Cahen was the widow of a doctor, and when the Franco-German War broke out she was one of the first to join the Society for the Help of the Wounded. Throughout the whole campaign *Madame Cahen* worked unceasingly. She passed fearlessly through the German ranks when seeking

the wounded, and she nursed with equal devotion the members of both armies. Yet Madame Cahen was thoroughly French, and would permit no insult to her beloved country. She had established an ambulance in the Lyceum at Vendôme, after the capitulation of Metz, and was caring for 800 wounded when the German officers hoisted their flag over the ambulance. Madame Cahen immediately threatened to depart with her staff and leave the 800 sick to their fate. She would never work except under the French flag, she said. The German officers admired her courage and patriotism, and replaced the flag they had removed. When the war was over Madame Cahen travelled through Germany, seeking out her countrymen who were there detained in prisons or hospitals. The Empress Augusta so greatly admired this philanthropy that she presented Madame Cahen with the Red Cross of the German Order. On January 1, 1889, Madame Cahen was presented with the ribbon of the Legion of Honour.

Sister Maria Theresa in the autumn of 1889 was presented at Tonquin with the ribbon of the Legion of Honour, when the general in command made the following speech :—"Sister Maria Theresa : you were only twenty years of age when you first gave your services to the wounded at Balaclava, and you were wounded in the execution of your duty. You were again wounded at Magenta. You bravely nursed the wounded through all our wars in Syria, China, and Mexico. You were carried off the field at Wörth, and before you had recovered from your injuries you were again performing your duties. When a grenade fell into your ambulance you without hesitation took it into your hands, and carried it to a distance of a hundred yards from the ambulance, when it exploded, wounding you severely. No soldier has ever performed his duty more heroically than you have done, or lived more successfully for his comrades and his country. I have the honour to present you in the name of France and the French Army with the cross which is only conferred upon those who have shown remarkable bravery in action. Soldiers, present arms !"

With two such heroines, belonging the one to the religious and the other to the lay party, who shall dare say which system of nursing is best?

5.—GERMANY.

Originally all the nursing of the sick, in times of war and peace alike, devolved upon the great Orders of chivalry, and especially

upon the Knights of St. John and the Knights of Malta. Of late years, however, the tendency has been for this work to be taken up by women, and a very complete nursing system has been developed in Germany by means of several distinct nursing societies for women. The underlying principle is the same in them all. They are intended to train nurses theoretically and practically in all their duties, and to qualify them to act in private houses or public institutions, to provide them with adequate remuneration except in voluntary cases, and in several instances to secure to them a pension after a definite number of years' service. The age at which probationers are admitted is generally between twenty and forty, with slight occasional variations, as in the Victoria Home, Berlin, where the minimum age for admission is twenty-five. Under very exceptional circumstances probationers are accepted after the age of forty, on production of a satisfactory medical certificate. Generally speaking, probationers have to produce their baptismal and confirmation certificates, written authority to join from their fathers or guardians, testimonials of character from the clergy or authorities in their place of residence, and, in the case of a widow, a certificate of her husband's death, and some information as to the position he occupied.

Taking the leading nursing associations individually, the "Fatherland Ladies' Society" admits ladies without any regard to their creed or religion, to be trained as nurses, on payment of fifty pfennige a month, and an understanding that they are ready to do any womanly work gratuitously. This society numbers over 64,500 members, and there are seventy-two branch societies, specially intended to manage and support sick-institutions and to train nurses.

The "Clement House" is intended to give a thorough training to nurses for either private or hospital work, principally in the town and province of Hanover. The terms of admission are as stated above; but before they can be admitted as Sisters the nurses have to submit to a three months' probation, after which they are obliged to sign an agreement pledging themselves to belong to the nursing institution for three years, and to nurse either in war or in peace, in private houses or in public hospitals, as they may be directed. They receive a complete uniform, and 144 marks a year as pocket money, which is paid monthly, and also 36 marks for travelling expenses in their annual holiday of a month's duration. After ten years' service they are allowed to retire on a pension, the amount of which is not stated.

The following paragraphs showing the duties of the Lady Superior deserve attention :—

1. She must conduct the management in conformity with all regulations.

2. In her duties she is subordinate to the Council of Inspection and the Committee.

3. She shall, upon request of any member belonging to these Boards, unfold all her management, and she shall report every occurrence of importance in the same quarter.

4. Among her duties were declared to be—

(a) Admission of nurses.

(b) Their training with the co-operation of the hospital physicians.

(c) Their reception into the body of Sisters, in agreement with the hospital physicians.

(d) Decisions as to the employment of these Sisters in nursing, always with due regard to medical opinion.

(e) Discharge of Sisters from their body.

6. Admission and discharge of Sisters is always with approval had of the Committee.

The Sisters may be degraded or dismissed through breaking rules, through neglect and carelessness, or through bad conduct.

7. Her position is that of a mother and wife in a Christian house. She takes her meals with the Sisters, occupies herself in the evenings with them, but does not call upon them for service about her own person unless in case of sickness. She must bring herself in contact with the sick. She shall be an example to all.

8. In admitting patients, where it is a matter of the capacity of the establishment or the nursing capabilities, the medical staff shall consult her. In certain cases of accident, and the like, she may herself admit patients.

9. In matters of nursing, she and the Sisters are placed under the physicians, being dependent upon their instructions. But if there be instructions which exceed the powers of the institution, or may cause positive mischief, she has to speak out against the medical staff.

12. At least once in six months she shall visit all affiliated institutions, and once a year all stations. She has to endeavour to make all these branches of like ordering with the Home itself.

14. She may claim six weeks' leave of absence annually.

15. In case she is away for more than eight days her representative must be approved by the Committee.

The "Ladies' Lazaret Society," founded by the Empress Augusta, is a similar institution, but possessed of two great advantages, in having the management of the Augusta Hospital, and also a special asylum for the training of nurses, who when qualified may be sent to nurse private cases. The affairs of this society are managed by a board of guardians, a committee, and by general meetings of the members. At the end of 1884, 144 persons had received practical and theoretical training in nursing, and fifty ladies received technical theoretical instruction alone.

The latest, and probably the best, association of this kind is the Victoria Home, Berlin, opened on January 1, 1883, under the immediate patronage of the Empress Frederick, who was at that time the Crown Princess.

After the ordinary preliminaries, probationers remain a month on trial, and if then found capable are retained for a year's training, during which time they receive free board and lodging. On commencing their training they undertake to serve for two years in the Victoria Home after the expiration of their first year's training. To seal this agreement a fee is imposed of 300 marks, 60 of which have to be paid before the first month of trial, and be forfeited if they then retire. The whole security remains the property of the probationers if they complete their first year's training and the subsequent two years at the Victoria Home. At the end of these three years the nurse receives free board and lodging, uniform, and an annual salary of 300 marks, which may be raised after twelve months to 400, and subsequently by good conduct to 600 marks. Nurses are strictly prohibited from taking presents of any kind, and may

The Victoria Home, Berlin, and its Fields of Labour, 1886.

County.	District.	Township.	Name.	Date of Foundation.	Sisters.	Beds.	Patients.
County of Berlin		Stemmetzstrasse Lothringerstrasse Ziegelstrasse .. Artilleriestrasse .. Friedrichshain ..	Victoria Home ..	1883	41	..	..
			Care of poor and sick	1883	2	..	..
			Surg. Clinic ..	1883	2	..	..
			Women's Clinic ..	1884	5	277	2,468
			Hospital ..	1884	3	104	1,078
Potsdam ..	Niederbarnim	Rummelsburg ..	Hospital of the Berlin Orphanage	1884	28	705	2,621
Schleswig	Tondern ..	Wyk on the Föhr ..	Children's Hospital	1885	1	124	250
Aurich ..	Emden ..	Norderney ..	"	1886	..	80	130
			"	1887	..	250	..

be dismissed by the Committee for neglect of duty or dishonesty, after which they have no further claim on the institution

When nurses are taken ill they are tended and treated free of charge either in the hospital or in the institution, and when they are obliged to leave on account of chronic or lingering illness a written agreement is made, as soon as the means of the institution permit, giving a closer connection with the institution to such invalids, and making provision for the wants of sickness and old age.

Early in the year 1881 a nursing society was established at Schönebeck, in the county of Magdeburg, with the objects (1) of affording to the needy sick suitable nursing and the accessories of successful treatment, and (2) of training nurses for the country.

There are many similar societies, as, for instance, the Wiesbaden Society of the Red Cross. There are also the brotherhoods and sisterhoods of the Roman Catholic communities, and the Deacons and Deaconesses of the Evangelical persuasion, with numberless Homes all over the country, and bands of Sisters and Deaconesses or Brothers, as the case may be, who carry on their charitable labours in some hospital or asylum in the neighbourhood.

It will be important, however, to append a few special particulars, partly numerical, showing the growth of these functions.

The Roman Catholic communities have the longest concerned themselves with the care of the sick, and, in possession as they are of many institutions, they have sent out a multitude of trained nurses. In 1885 there were 5,470 Sisters occupied with nursing in Prussia. They were divided amongst the following Orders :—

1. Carl Borromæus (Trebnitz and Trier).
2. Poor Maids of Christ (Dernbach).
3. St. Clement (Münster).
4. St. Franciscus (St. Mauritz).
5. St. Franciscus (Aix-la-Chapelle).
6. Elizabeth (Neisse).
7. St. Vincent (Paderborn).
8. St. Franciscus (Waldbreitbach).
9. St. Cellitis (Cologne and Düren).
10. St. Franciscus (Heythuisen).
11. St. Vincent (Fulda).

As regards Brothers of Charity the numbers devoting themselves to the care of the sick—

For the years	...	1880	1881	1882	1883	1884	1885
were	...	9	5	30	21	30	37
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Although the Evangelical Societies have been in existence for little more than fifty years, there were already, in 1884, 2,853 deaconesses in connection with twenty Mothers' Homes in Prussia. In 1885 there were 205 deacons in activity.

In the years	1880	1881	1882	1883	1884	1885
there were trained	23	22	20	37	30	35 deacons.

The plea for the erection of proper institutions for the training of nurses has been taken up by Professor Virchow, as well as by many other distinguished men. He claims that nurses should proceed from other ranks of society than has hitherto been usual, and, allowing that there are difficulties, suggests the following principles:—

1. It is desirable in public hospitals that nursing on the male side should be in the hands of women.
2. Every large hospital should have a training school for nurses in connection with it, maintained by the town or province, or by the State.
3. There should be societies in every medium-sized district and town, and in each of the smaller States for gathering money for the training of men and women for nursing. They may be either independent or associated with the care of the public health, or with agencies for the relief of the sick and wounded during war.
4. Where possible, habitations should be formed of the men and women engaged in nursing, to assist those who may be out of employment, to pension those who fall into infirmity, and to promote mutual improvement. They may receive all moneys due to their members, and themselves undertake the payment of the same.

It is to Virchow's initiative that is due the establishment of the training school for nurses in Friedrichshain, from the rules of which, as laid down in 1876, one or two points presenting peculiarities are here subjoined:—

1. The school is for the training of women, for purposes connected with the borough hospitals and private nursing.
2. Those received for training shall be unmarried, and between the ages of twenty-one and thirty-five years. Very exceptionally they may be over thirty-five, but never beyond forty-five years of age.
5. Each pupil must, on entrance, deposit 5*l.* and engage to take part in the entire course. Those who on completion of their train-

ing remain for two years in activity on behalf of the institution, have their money returned to them. They receive, during probation, board and lodging, and are under the ordinary rules for other nurses.

7. Twice annually, commencing in May and in November, there are preliminary courses, of one month's duration, in the following subjects :—

(a) Short anatomical course.

(b) General nursing (transport, bedding, services commonly needed) and dietetics.

(c) Minor surgery.

(d) Management and domestic work.

During these courses the pupils do not stay in the hospital. Of their commencement notice is given for four weeks in the most popular Berlin journals. They are followed by an examination. Some pupils are not permitted to proceed, and receive back their deposits.

9. The course of training lasts five or six months, from January 1 or July 1.

10. During this period they receive board and lodging, but must provide their own uniforms or pay 20s. for the same to the Hospital Committee.

The earliest foundation by the State in Prussia for the training of men as nurses, was in connection with the Midwives' School in Magdeburg in 1799. Another followed in Mannheim in 1800, and, most important of all, came that in connection with the Charité, in 1832, through the efforts of Rust and Dieffenbach. Similar institutions, similarly subsidised, have not been founded by the State in the other provinces of the country, for the reason that large hospitals for the purpose were not in those districts at the disposal of the State.

Special interest is attached to the following institution, as it is the one where Miss Nightingale and many of the best English and American nurses have been trained.

The Deaconess Institute at Kaiserswerth on the Rhine was opened by Pastor Fliedner in 1836. It has an asylum, school, and penitentiary besides the hospital. The Sisters nurse at Kaiserswerth, Berlin, London, Frankfurt, Kreuznach, Constantinople, Jerusalem, &c. The fame of their nursing system has extended all over the world. The hospital is divided into four departments: men, boys, women, and children. The last admits boys up to six years

of age and girls till seventeen. The male wards are served by men nurses working under a Sister, but the Sister never goes into the men's or boys' wards after 8 P.M. There is no medical man resident in the hospital. The Sisters go to bed at 10 P.M. and rise at 5 A.M.; one Sister sleeps in every ward, but there is a watcher whose duty it is to walk the hospital at night and attend to the small needs of the patients. In case of severe illness the Sister of the ward has to sit up; the duty of night watching is taken once a week by each Sister for three hours and a half.

The period of training is three years; and for the first six months the probationer receives only food and lodging. After that a small salary is given, but it is merely sufficient to keep her in clothes. In sickness and old age the Mother House cares for her Sisters; hence there is no reason why high wages should be given. Following on the lines of the Kaiserswerth Institution, deaconesses were established at Strasburg in 1842, Utrecht in 1844, Berlin in 1847, Pittsburg, 1849, Breslau and Königsberg, 1850, and Carlsruhe, 1851.

The Albert Verein Society, founded by Queen Carola of Saxony in 1867, also deserves notice. The members of this organisation are instructed for two years at the hospitals of Dresden, and then spend a third year at Leipzig attending lectures and demonstrations. They are sent out to nurse either rich or poor, and they have charge of the Carola Hospital, the Convalescent Home, and the Children's Hospital at Dresden. They are paid from 12 to 24 marks a month, and in old age and in sickness they receive a pension. They wear a uniform dress and cape of grey, with a white linen cap and blue-striped apron. Their course of training and subsequent duties are excessively hard, but so thorough that several English ladies have passed through them for the sake of the excellent teaching.

A correspondent of the *British Medical Journal* sent over lengthy accounts of the chief German hospitals in 1889, but though Professor Von Bergmann's Hospital and that at Friedrichshain were highly commended so far as the nursing was concerned, it was said that at Strasburg and elsewhere the old untidy system still prevailed. Religious Sisters in cumbersome and unsanitary dresses were in charge of the wards, and under them were rough untidy nurses who had no notion of keeping the wards dainty or of spreading an air of refinement through the buildings. Still we cannot afford to complain of German nursing. The Germans

set their house in order in this respect long before we did, and what we have done has been to a great extent on the lines they first laid down.

6.—HOLLAND.

In Holland the religious system has never had firm hold, and there is good opportunity for seeing how deaconesses work.

In the year 1844 four or five ladies in Utrecht, amongst whom we may mention the Baroness de Zuylen de Myevelt, started a plan for opening a small infirmary for women and children, and tried to rouse the interests of their countrywomen in these invalids. After this first work many others followed. At Haarlem special treatment is given to those suffering from epileptic fits; this is the only establishment of its kind in the country. Arnhem, Groningen, Leuwarde, Wordtect, each have deaconesses, in proportion to their populations. A few years ago the services of district deaconesses were introduced, who have an office where they nurse a few sick poor, and where they often give advice for many small miseries—physical and moral. After their consulting hours they give a helping hand to families where the illness is not sufficient to warrant the keeping of a sick-nurse by the week. The deaconesses in Holland, with very few exceptions, give themselves up entirely to the nursing of the sick, to the refugees, to the children's schools, and to the teaching of girls. Many things which in other countries form part of the work of a deaconess do not enter into it in Holland, the spirit of centralisation which can group several branches under one direction not being a trait of the Dutch character.

In the year 1864 three ladies conceived the idea of starting at the Hague a work similar to the École Normale of the sick-nurses at Lausanne. One of these ladies being the owner of a small house, which was admirably suited to this purpose, gave it up to the committee for the space of four years, and Mademoiselle de Bronoro was asked to undertake the direction. She accepted the offer, but not without hesitation. Before beginning her task she visited similar establishments in Lausanne and Berlin. On her return to the Hague she began her work with five nurses, and it soon became apparent that the institution was much needed. From all parts came demands for the help of the deaconesses to nurse sick people, so that when the four years' trial was ended, far from giving up the work, the committee found it necessary to extend their operations.

In the year 1888, 337 invalids were taken care of in the house of the deaconesses. At the Hague the deaconesses were required for 193 families, and in other towns for 49 families. Two hundred and fifty-one operations were performed in the establishment by different surgeons, and 1,356 invalids were nursed on their way through the town. The number of deaconesses is twenty-three, and there are seventeen novices.

The committee of the Red Cross at the Hague hold an annual class, which is presided over by an army doctor. Students are instructed in first aid to the wounded, and the dressing of wounds and bandaging are practised three times a week, under the direction of a surgeon and a Sister-nurse. These classes are attended by the members of the committee and by women desirous of making nursing their profession. The latter are obliged to pass a period of about six months in the town hospital, after which they are examined and certificated, and are then in great demand as sick-nurses. The committee a short time ago hired a house where the Sisters who have diplomas find a home at moderate charges, while the apprentice nurses are lodged and boarded there at the expense of the committee. A large room on the ground floor and a bath-room adjoining are adapted for the antiseptic treatment of the wounded or infirm poor. The committee dispense very little money—300 florins for general expenses—but the zeal of the members knows no bounds. During a recent year 170 wounded were attended to and 1,629 wounds were dressed. At the Hague there is a Children's Hospital with a trained matron and two trained nurses. The Children's Hospital at Rotterdam has attached to it a training-school for nurses, and lectures are given at it.

The following notes,* which refer to the inner, or St. Peter's Hospital of Amsterdam, show the other side of nursing as seen in Holland :—

The Nursing.—The nursing attendance has been much improved by the appointment of a male and a female superintendent. Formerly the duties of supervision were discharged by the dispenser, who had to report any irregularities to the board of directors. The sittings of that body taking place at intervals, and the dispenser having the greater part of his time taken up with his special department, the supervision naturally laboured under a great disadvantage.

* Extracts from *The Medical Topography of Amsterdam*, by C. J. Nieuwenhuis, vol. iii. para. 592.

At present the whole supervision is entrusted to the superintendent, who has under his command inferior officers.

For both the male sick and the surgical wards there is only one master, who has, however, under him three attendants for each class.

For domestic purposes there is a matron, with the necessary male and female assistants for the kitchen, a baker and his subordinates, and, finally, a gatekeeper.

In the female wards, a matron has charge of both the sick and the dying, having one or two assistants for each ward under her. There is also a matron, with two attendants, for surgical cases.

Board of Management.—The entire management of the institution is vested in a board of six male directors, with six female directors in the interest of the female patients. The members are elected for life by the municipality, and the office is honorary.

Staff and Remuneration.—The staff are not sufficiently remunerated, and the attendants are, therefore, exposed to the temptation of taking bribes in various shapes from the patients who desire to circumvent the rules and to gain greater licence. A more liberal payment would go far to neutralise these illicit transactions.

The respective annual salaries are as follows:—the superintendent, £50; the master, £10 15s.; the matrons, from £5 10s. to £7 10s.; the male and female attendants, from £3 10s. to £4 4s., exclusive, in each case, of board and residence. The number of the staff is insufficient, and their duties are too numerous to enable them to give proper attention to all their patients and to fulfil their responsibilities conscientiously. The result must sometimes be serious suffering on the part of the patients.

With reference to the outer, or fever hospital, paragraph 613 of the volume from which we have taken the foregoing remarks says: "The same remarks are as pertinent with regard to attendants as those made with reference to the inner hospital, especially the insufficient remuneration of the staff and their excessive duties." The nature of these duties and the salaries are given in the original, but not in this English version, which really is little more than an index. Paragraph 623 says: "There is here, as in the inner hospital, an improvement in the nursing."

7.—ITALY.

Originally the confraternities and sisterhoods had the whole charge of the sick in Italy, which was the last country where monachism remained unmolested. Pope Innocent III. gave a great impulse to nursing by founding the Hospital of San Spirito, in Rome, in the fifteenth century, and placing it in the hands of Guy de Montpellier, the founder of the celebrated nursing Order of the Holy Ghost. But in 1866 Piedmontese religious Orders were suppressed, and after the unification of the kingdom every religious house throughout the country was declared national property. At the close of 1882, 2,255 monasteries and convents had been suppressed, and those that remained were chiefly active Orders, whose duties to the sick it was impossible to find others to perform. The Sisters of St. Vincent de Paul, for instance, still reign over the huge Hospital Maggiore, at Milan, which contains 4,000 beds. As a rule, there are from 2,000 to 3,000 patients within its walls, and each ward of sixty beds has a sister, four lay nurses, and a man. Yet, in spite of this small staff, the wards are exquisitely kept, and are a great credit to the sisters. As a result of the law repressing all religious Orders, the sisters have to be called *sorveglianti*, or superintendents; but in dress and in rules they are still Sisters of St. Vincent de Paul.

Every department of the hospital, whether wards, kitchens, laundry, wardrobes, dispensaries, or clerks' offices, is under their superintendence, and so also are the nurses and helpers. The sisters and nurses are lodged in the hospital; the pay of the first is 1 lira 50 cents a day (about 1s. 3d.) and food, with the privilege of having it in kind or in money. The nurses, beside their board and lodging, are provided with one uniform a year—blue-and-white striped—and a daily wage of from 60 to 90 cents. While the probationer is on her trial she receives only 30 cents a day. While the nurses are in attendance upon the insane and infectious patients they have an increase of 20 cents daily in their remuneration. Although there is no definite assurance of pensions to those who work long and faithfully, yet the council never permits such workers to go without annuities.

The following is a summary of the general rules of service in the wards of the Maggiore Hospital, Milan :—

The care of patients, male and female, is entrusted to the nurses, except in the case of those suffering from delirium, venereal diseases, &c.

The rule is to have in each ward four nurses and one night nurse.

Suitable servants supplement the nurses in the heavier work.

Over the nurses there is a head nurse and a vice-head nurse.

It is required of nurses :—

1. To be healthy, robust, and of pleasant appearance ; to have been recently vaccinated.
2. Height : males, 1·60 metre ; females, 1·50 metre at least.
3. To be of good morals, and the females to be natives of the country.
4. To read and write and know the first four rules of arithmetic.
5. Males to be between the ages of twenty-one and thirty. The females to have completed their eighteenth year, and not be more than twenty-five. This is not required of head or vice-head nurses.
6. The nurses to be single, or widows without children, and to remain so.

On a programme drawn up by the medical director and approved by the council, one of the medical inspectors, delegated by the medical director, holds an annual course of lectures on sanitary matters for the nurses of both sexes ; and he also superintends the school for reading and writing, both for the nurses and the children received in the cutaneous department.

The nomination of nurses (male and female) and also promotions follow after examinations, due account being taken of good service, diligence, and zeal in attending on the patients. The examination is on the duties of nurses, and includes reading and writing easily.

To these examinations nurses (male and female) only are admitted who have^r served for one year at least, and who have attended with profit the course of sanitary lectures.

The conduct of all the nurses and servants in the hospital must always be dignified.

They are to conform to all orders of the medical officers in charge, and to conduct themselves with kindness and solicitude towards the patients, and with obedience towards their superiors.

It is absolutely forbidden to all nurses to use on the minds of patients any pressure with a religious tendency.

The nurses are obliged to attend a complete course of sanitary instruction given by an inspector.

There is a special fund, by means of which premiums in money and medals are given to the male and female nurses, and other servants

for kindness and zeal towards the patients, good conduct, and observance of duties.

The male and female nurses, head and vice-nurses, and in general all the persons employed, and who have made their career in the hospital, when they become unfitted for any further work retire on the proposal of the medical director. They then can obtain from the council pensions commensurate with their treatment, their conduct, the length of their service, the circumstances which rendered them unfit for work, and their need.

The pension is usually four-fifths the amount of the salary. But in cases where the nurse is compelled to retire on account of a contagious malady contracted in the service of the hospital, there is no deduction. And in case of death under similar circumstances, special treatment is conceded to the widow and orphans under age. There is a memorial tablet in the Maggiore Hospital giving the names of five male and two female nurses who died between 1863 and 1874 from contagious diseases caught by them in the execution of their duties. There are 104 male and female nurses and servants employed in the Maggiore, whose stipends amount to 98,600 lire. There are forty-two others employed in the Institute of the Santa Corona (Holy Crown), whose stipends amount to 53,160 lire.

In 1843 the care, discipline, and internal management of the Hospital Fate-bene Sorelle, founded by Countess V. Ciceri, were entrusted to the religious institution of the Fate-bene Sisters, who held it till 1876. From that time the service of the wards was managed by ten nurses taken from the suppressed religious corporation of the sisters of charity and eight servant-women. The number of the nurses is proportioned to the number of the patients. The rule is, that each division is served by one night nurse and four nurses.

The statement opposite shows the number and stipends of nurses in the Hospital of the Fate-bene Sisters.

The rules say that the attendance on the sick is entrusted to the Sisters and nurses. The Sisters superintend and direct the service of the kitchen and pantry; they watch over the preservation and preparation of food, the proper use of combustibles, the cleanliness of the place and of the utensils, and the exact fulfilment of the duties of the servants.

The nurses (male) in connection with the Fate-bene Hospital are all persons who formerly belonged to the dissolved corporation of the Fate-bene Brothers. They receive food and lodging and a

total annual indemnity of 8,400 lire for clothes and personal expenses; this refers to twenty-eight Brothers who live at 28 Porta Nuova. There are eight brothers at 8 Porta Magenta, who likewise receive food and lodging and an annual indemnity of 2,400 lire.

In the Stabilimento Sanitario, at Milan, patients who pay 9 lire a day have the exclusive attention of one nurse. If they pay 6 lire a day, the nurse attends two patients.

Quality.	Wages per diem on Active Service.	If Sick at Home.	If Sick in Hospital.	—
<i>Female Servants.</i>				
	lire.	lire.	lire.	
1 chief night nurse	1'80	..	..	} Furnished lodging.
3 night nurses	1'80	..	..
5 do. kitchen, pantry, wardrobe	1'80	..	..
Supernumeraries, when there are more than 120 patients	1'80	..	..
10 nurses, 1st class	'60	..	'20	} Food and lodging, vest and apron each year; supers after 3 months.
5 nurses, 2nd class	'50	..	'16	
Supernumeraries	'30	..	'10	
<i>Male Servants.</i>				
1 porter	2'25	1'50	'75	} 400 gr. bread, lodging, firewood, lights, uniform every 3 years, overcoat 10 years.
2 servants, 1st class	1'0	'65	'30	
3 servants, 2nd class	'75	'50	'25	} Food and lodging, cotton blouse.

At San Remo and at Rome there have lately been established nursing institutions from which English trained nurses can be obtained. These institutions also receive patients within their walls, and nurse and care for them. The present Queen of Italy is interesting herself in hospitals, and it is probable that she will be able to introduce a more modern system of nursing into those numerous establishments where untrained nurses are still employed.

8.—NORWAY AND SWEDEN.

In Norway and Sweden the nurses are taken partly from the so-called Diakomiss Institution, in Stockholm; partly from a nursery established by the Association for Succouring the Wounded and Sick in the Field; and partly from the hospitals, where teaching is given to those who show an aptitude for nursing. Those nurses who come from the Diakomiss Institution are paid by the institution itself. All other nurses are paid by the hospital or establishment at which they are engaged. For the most part, nursing is undertaken by people who do not belong to the better classes of society.

When there are several nurses in one establishment, they are generally placed on a footing of equality with one another. Of

late years, however, a *head* nurse or matron has been appointed at many of the hospitals. This is the case at fifteen well-known institutions.

With regard to the number of nurses requisite for an institution, the proportion is seldom greater than one nurse to fifteen beds.

Nurses receive from 200 to 600 crowns ; head nurses, sometimes as much as 1,000 crowns.

Salary :	Head nurses at 2 hospitals	...	...	1,000	crowns.
	" "	3	"	...	700-800 "
	Nurses at	6	"	...	500-600 "
	"	17	"	...	300-400 "
	"	13	"	...	200-300 "
	"	13	"	...	100-200 "

In lunatic asylums there are male nurses for the male patients, and female nurses for the female patients. These asylums are generally arranged for an equal number of both sexes of patients, so that the male and female nurses are about equal in number. In other hospitals, however, the nursing is done exclusively by women.

In lunatic asylums the proportion of nurses to patients is greater than in ordinary hospitals. In these latter it is one to fifteen ; but in lunatic asylums it is never less than one to ten, and often reaches one to six.

Some of the hospitals train their own nurses. The institution spoken of as the Diakomiss Institution trains female nurses only. The course of instruction lasts two years, at least. It consists of both theoretical and practical training.

The Association for Succouring the Wounded in the Field provides instruction, both theoretical and practical, for nurses in training. The course is, however, much shorter than that of the Diakomiss Institution, and follows no definite lines as yet.

9.—RUSSIA.

In Russia, the Crimean War gave a stimulus to nursing.

Sick-nurses are engaged by the hospitals at their own expense, or are furnished by the Society of the Red Cross, which receives the pay. For some time past, most of the sick-nurses in the large towns have belonged to this society, as also do all those in the military hospitals. Voluntary sisters of charity, belonging to the

higher classes of society, were enlisted in great numbers in the last Turco-Russian war, but in times of peace such nurses are almost unknown.

In time to come all male nurses will be replaced by females, as far as circumstances may render this change feasible. Voluntary male nurses during the war proved themselves quite incapable, lacking perseverance, self-denial, and even honesty. In military hospitals, as in the field, the proportion of female to male nurses can only be very small.

The Sisters of the Red Cross belong to the lower classes, but are well taught, theoretically and practically, in nursing-schools attached to the hospitals, or by the Society. They are a semi-religious body, but can leave the sisterhood if they please.

St. Olga Children's Hospital, Moscow.—There are fourteen nurses engaged in this institution, at salaries of six roubles a month. The education is entirely practical.

Oconkow Hospital, St. Petersburg.—In this hospital there are nearly one hundred nurses, besides twenty-five Sisters of the Red Cross Society. The latter receive thirty roubles, and the former from seven to ten roubles, a month.

Clinical Hospital of Baron Williet, St. Petersburg.—There are here sixty nurses (thirty male and thirty female), the salary being seven roubles a month. The training is purely practical. There are, moreover, (a) five clinical assistants receiving 579 roubles per annum, (b) one accoucheuse, at 396 roubles per annum; (c) five dressers or doctors' assistants, at 76 roubles per annum; (d) five female doctors' assistants, receiving 144 roubles per annum.

Military Clinical Hospital at St. Petersburg.—The sick-nurses are soldiers. There are also fifteen sisters of mercy, who receive thirty roubles a month. The training at this hospital is purely practical.

10.—SPAIN AND PORTUGAL.

In Spain, "the most Catholic of countries," the old system of nursing holds almost undisputed sway. The hospitals for women and children are nursed by nuns of different Orders, and the hospitals for men are nursed by monks. Sisters also nurse the sick rich in their own homes, but the poor are terribly neglected. By royal decree, a room is set apart in every hospital for the treatment of non-Catholics, but so strong is the religious feeling still in Spain (that spirit which delighted in *autos de fé*), that the Protestant is

never able to feel himself a patient who is welcome to the sisters. Two gentlemen of Jerez lately openly accused the sisters of neglecting a German sailor because he was a non-Catholic. A cottage hospital with an English nurse is being established in the Cadiz district for the use of Protestant patients. Still, it is useless to look for trained nursing in Spain and Portugal, though, as a rule, kindness and constant attention can be secured, and that knowledge which any woman must gain by long experience. Looking backward, we find that in 1538 the Brothers of Charity were founded at Granada—a remarkable Order, whose chief object was the care of the sick poor. In 1568, St. Theresa worked many reforms in the convents. The Sisters of St. Vincent de Paul had charge of about thirty hospitals in Spain. Of late years, when France, Italy, and even England have seen the formation of many new religious Orders, there has been no similar activity in Spain. The old Orders still hold their ground, not moving or improving with the times, and often the poor monks and nuns are reduced nearly to starvation; for, though long delayed, the fall of the religious houses took place in Spain as elsewhere, and on June 21, 1835, 900 monasteries were suppressed. Later, Isabella II. made a law that no corporate body could hold any property, and the vast estates of many of the monasteries were confiscated. Portugal had more religious houses, in proportion to its size, than any other country at one time, but 500 were suppressed at a blow. With nursing left solely in the hands of these disorganised fraternities, it cannot be wondered at that even the devotion of the Sisters and Brothers of Charity does not produce scientific tending of the sick.



CHAPTER XIII.

CHRONIC HOSPITALS.

NO one who has been intimately associated with the administration of a hospital for many years can have failed to see, if brought into contact with the classes of cases seeking relief and succour, that the system on which it is necessary to administer the great British hospitals excludes from the wards many cases which would be greatly benefited by prolonged treatment and skilled nursing under proper hygienic conditions.

At the clinical hospitals, especially those situated in populous centres, the demand upon the beds is at times so great that there are numerous cases, requiring much more care and nursing than their friends can secure for them at home, which it would be impossible for the authorities to retain under treatment. It is very distressing to be compelled to send a man out with a broken leg in a plaster-of-Paris splint before the limb has consolidated and the patient may be said to be in a condition to be safely discharged without risk of injury to his health or any aggravation of his ailment. In another class of cases—those which require operations—it very often happens that the physical condition of the patient is such, when admitted to the hospital, that the prospects of recovery are seriously endangered if his general health cannot be materially improved before the surgeon proceeds with his work. Again, there is a large class of cases which the clinical hospitals cannot deal with at all, because possibly the patients are not acutely ill, or, at any rate, sufficiently ailing to warrant the physician taking them into the ward of a large general hospital where the pressure on the beds is much greater than can be met. Everybody who is interested in hospitals and who possesses an adequate knowledge of the circumstances, is fully alive to the facts ; but, in the face of

the increasing demand for further hospital accommodation by many classes of the community in the time of illness, it is felt and urged, that to extend the hospital system by the establishment of a new class of hospitals which should provide accommodation suitable to the requirements of the groups of cases we have enumerated, would be to endanger the well-being of the community by adding one further link to the pauperising influences which there is some reason to believe already operate to an undesirable extent through the agencies which supply free medical relief to all applicants without adequate restrictions.

So it has come to pass that, until very recent years, no attempt has been made to deal for the major part with any but acute, accident, and medical cases in the hospitals of this country. The returns of the recent census prove to demonstration that in the great towns the increase in the population continues to be surprisingly large, and that, in the result, further and considerable hospital extension must take place before many years have passed if the needs of the population are to be adequately met.

Again, in London especially, the chief hospitals are situated within a relatively short radius from Charing Cross, and consequently are many miles away from populous districts where the poorer classes, from whom the majority of the patients come to the hospital, for the most part reside. These two special features of the moment point to a rearrangement of the hospital system, and prove that steps will have to be taken to meet the difficulty, either by means of out-post hospitals under the control and support of the existing institutions, or by the establishment of new hospitals, and of hospitals specially adapted to relieve the beds of the older institutions, where such facilities can be supplied for the adequate treatment of the more serious and urgent cases which have to be dealt with. All these considerations seem to justify a close examination of the claims of the chronic cases which at the present time receive small and unpretentious, or oftentimes inadequate, treatment at the existing institutions.

Considerations of this kind induced the authorities of the General Hospital, Birmingham, to make a new departure, with the view of relieving the pressure on the beds at the parent institution, and at the same time of securing that very many cases which it is difficult to deal with in the wards of the General Hospital should receive the longer and more special treatment which their requirements demand. Mr. John Jaffray, than whom no one has taken a

greater interest in the medical charities of the Midland metropolis, with liberality and judgment determined to erect a chronic hospital in the suburbs of Birmingham, at Gravelly Hill, for the reception of the class of cases referred to. He generously gave a site and erected a considerable portion of a new hospital, which has since been extended, owing to the liberality of other Birmingham citizens, and is now complete according to the plans of its founder, the fourth ward, the second of those for female patients, having been opened by his Grace the Duke of Norfolk on the 25th of July, 1889. This chronic hospital contains fifty-six beds. Special attention has been paid to many matters of detail with a view to facilitating the treatment of chronic cases.

We have dealt with the plan of this hospital in the fourth volume of this book, and it is not, therefore, necessary to give a description of it here. It may not be uninteresting, however, to refer to a few of the general principles which should govern the preparation of plans for hospitals intended for the reception of chronic cases. The most important of these are that there should be free ingress and egress to the building, and that unnecessary staircases should be avoided, so as to enable patients to move in and out with the minimum of exertion on their part. Staircases are necessarily a difficulty to chronic heart and lung cases—patients whose general health requires the minimum of exertion with the maximum of care, and an absence of everything which will tend to promote waste of energy of every kind. Again, the chronic nature of the ailments renders it possible for a patient to be out of bed for a considerable portion of each day. Hence the chronic hospital should contain special day-room accommodation and should afford facilities for amusement and recreation which would be altogether out of place in an institution devoted entirely to the treatment of acute cases. A good library, pleasant sitting-rooms well supplied with games and bright with flowers, are almost a *sine quâ non*. For the same reasons, the site should be selected in a suburb where there is an abundance of fresh air, and where grounds are available in which the patients can take exercise and during fine weather avail themselves to the full of the advantages afforded by fresh air and sunlight. Special bath accommodation, adequate lifts, invalid carriages, and similar appliances should be freely supplied, and each ward should have a large piazza under which the patients may be wheeled out, and where others may sit or recline, according to the nature and requirements of their cases. It will be seen that the first chronic hospital, that at

Gravelly Hill, does not meet these requirements to the full extent that is desirable, but we have every confidence that the liberality of its founders and of the Birmingham public will speedily remedy existing defects, and that ultimately it will be made replete and satisfactory.

The expense of maintaining a chronic hospital should be relatively less than that of an ordinary hospital, because the requirements of the patients will not necessitate anything like so large an expenditure in many directions as the adequate treatment of acute cases necessarily involves. It is satisfactory to find from the report of the medical staff that the Jaffray Chronic Hospital at Gravelly Hill has proved in practice to be a great success. Of two hundred and eighteen cases admitted to treatment in the course of twelve months, eighty-six were discharged cured, twenty-five were much relieved, twenty-six were relieved only, eight were unrelieved, and twelve died. In addition to these, sixteen cases were received from the General Hospital in order that they might improve their general health, and, after their retention at the Jaffray Hospital for a lengthened period, they returned to the parent institution, were operated upon, and were ultimately discharged cured. It is not too much to say, that had these sixteen cases been admitted direct to the General Hospital and immediately placed upon the operation table, the results must necessarily have been less satisfactory. Each year's experience shows that the proportion of those that are cured and much relieved has increased, as well as the number of patients admitted to improve their health previous to operation; whilst the numbers of those only relieved and of deaths have diminished. This is due to the fact that the honorary medical officers, as was originally anticipated, have been able, by reason of their increased experience, to make a more judicious selection of cases to which the aid of the chronic hospital, as compared with that of the acute hospital, is specially advantageous.

In considering the desirability or otherwise of opening chronic hospitals, certain principles have to be taken into account. It is perfectly clear that it would be undesirable to open a great number of these institutions, and that only special circumstances would warrant the establishment of such a hospital in connection with the existing institutions of a particular locality. In any case, the chronic hospital must not be allowed to be another pauperising agency, or to tend in any way to lower the self-respect of the patients, or to prevent them from maintaining their independence. For these and

other reasons it seems to us desirable that every chronic hospital should adopt the principle of payment in proportion to the means of each patient received. Cottage hospitals have from the first adopted this principle, which works out in practice so that every patient is paid for by the members of his family or by people who are interested in him. In chronic cases, as a rule, the circumstances of the patients would admit of some small payment, or the cases have, from the length of time during which the disease has been endured, attracted the notice of friends or others well able to provide small weekly payments towards their maintenance in the chronic hospital. If this point be borne in mind, and provided it is arranged that the chronic hospital shall be associated with the existing general hospitals and so be fed by them, we are of opinion that the Birmingham experiment may be gradually extended so as to meet the needs and requirements of each large centre of population.

The chronic hospital should further be useful in providing suitable accommodation for many cases which have been inmates of general hospitals, and who have arrived at the stage of convalescence—that is to say, at a point where disease has ceased and health has to be restored. At the present time few or none of the convalescent institutions admit patients who are suffering from open wounds, however trivial those wounds may be. In other words, they are unprovided with trained nurses and the medical care which such cases to a certain extent require. Chronic hospitals might very well fill up the gap thus caused, and by providing suitable accommodation, with adequate medical attendance and the necessary nursing, do a great public good. Looked at, therefore, in all its aspects, having regard to the pressure upon existing hospitals, the ever-increasing population, and the inadequate arrangements of many of the convalescent institutions; keeping in view the necessity, in order to provide the necessary income, of taking care to prevent indiscriminate admission, or, indeed, admission at all except on payment, we feel that there is an opening, as we have said, for a certain number of chronic hospitals, especially in the neighbourhood of large towns. We hope that they may, after a full trial, become fairly general, and prove in practice useful institutions to promote the adequate care and cure of sick people of the poorer classes who need accommodation similar to that which they alone could adequately supply.



CHAPTER XIV.

PROPORTION OF HOSPITAL BEDS TO POPULATION IN THE PRINCIPAL CITIES AND TOWNS OF EUROPE AND THE UNITED STATES OF AMERICA.



It has been contended that figures representing the population of, and the hospital beds in, the principal cities of the world, and the proportion which the latter bear to the former, would throw much light upon the hospital problem. It is by no means easy to ascertain definitely what is the present population, much less what is the exact number of hospital beds to be found in every great city on a given date. We would wish it, therefore, to be understood that the figures given in the tables which follow must be taken as approximate only, although we have spared no effort to make them precisely accurate and to bring them up to the latest date. They certainly do afford much food for reflection, and there can be little doubt that they deserve most careful study, and should secure a large measure of attention. It is very difficult, however, to lay down any general rule which will apply with equal force to each community included in the tables. Local circumstances, the condition of the people, climate, habits, and national peculiarities all combine to account in a measure for the vast differences revealed by the figures. Still, when everything has been urged that can properly be contended for one view or the other, the fact remains that the older civilisations do supply an unduly large proportion of free beds for the population of their cities, and that such provision cannot fail to act, to some extent at any rate, as an inducement to the poorer population not to attempt to provide in the day of health for the day of sickness.

TABLE I.—*Proportion of Hospital Beds to Population in Principal Cities and Towns in Europe and the United States of America.*

Name of Town.			Population.	No. of Beds.	Beds per 1,000.
<i>England:</i>					
London	...	...	4,221,452	{ 24,000 do. voluntary only 8,094	5·68 1·91
Liverpool	...	...	517,116	1,160	2·24
Manchester	...	...	506,469	1,434	2·83
Birmingham	...	...	429,906	1,109	2·58
Leeds	...	...	369,099	504	1·36
Sheffield	...	...	323,304	448	1·37
Bristol	...	...	222,049	600	2·70
Bradford	...	...	216,938	479	2·20
Nottingham	...	...	212,662	298	1·40
Hull	...	...	200,934	194	0·96
Salford	...	...	198,717	249	1·25
Newcastle	...	...	187,502	654	3·48
Portsmouth	...	...	160,128	103	0·64
<i>Scotland:</i>					
Glasgow	...	...	567,143	1,953	3·44
Edinburgh	...	...	261,970	996	3·80
Dundee	...	...	155,640	250	1·60
<i>Ireland:</i>					
Dublin	...	...	353,082	2,256	6·39
Belfast	...	...	255,896	648	2·53
<i>France:</i>					
Paris	...	...	2,344,550	23,048	9·83
<i>Germany:</i>					
Berlin	...	...	1,574,885	6,074	3·85
Breslau	...	...	299,640	2,697	9·00
Dresden	...	...	276,085	1,350	4·89
Munich	...	...	271,629	1,371	5·04
Cologne	...	...	239,510	1,669	6·96
Leipsic	...	...	200,000	1,158	5·79
Magdeburg	...	...	159,520	856	5·35
Frankfort	...	...	154,513	1,030	6·66
Hanover	...	...	163,100	1,059	6·49
Königsberg	...	...	151,151	400	2·65
Dusseldorf	...	...	132,936	1,090	8·19
Stuttgart	...	...	125,901	1,436	11·40
Dantzic	...	...	114,805	876	7·63
Strassburg	...	...	111,987	1,630	14·55
<i>Holland:</i>					
Amsterdam	...	...	380,000	1,770	4·66
<i>Italy:</i>					
Naples	...	...	462,550	5,841	12·62
Milan	...	...	300,674	5,196	17·28
Rome	...	...	265,742	4,859	18·28
<i>Russia:</i>					
Moscow	...	...	* 2,204,930	* 11,393	5·16
St. Petersburg	...	...	* 1,660,859	* 15,090	9·08
Warsaw	...	...	* 1,443,823	* 5,337	3·69

* Population and beds in Government.

TABLE I.—*Proportion of Hospital Beds to Population in Principal Cities and Towns in Europe and the United States of America—continued.*

Name of Town.	Population.	No. of Beds.	Beds per 1,000.
<i>Spain :</i>			
Madrid	500,000	2,000	4'00
<i>Sweden :</i>			
Stockholm	167,440	1,162	6'94
<i>Austria :</i>			
Vienna	1,100,000	5,326	4'84
Buda-Pesth	440,000	3,636	8'26
Prague	245,000	1,789	7'30
<i>United States : *</i>			
New York	1,515,301	* 5,000	3'30
Philadelphia	1,046,864	* 1,071	1'02
St. Louis	451,770	* 750	1'66
Baltimore, Maryland ...	434,439	* 300	0'69
Cleveland, Ohio. ...	261,353	* 200	0'76
Providence, R.I. ...	132,146	* 90	0'68
Boston	448,477	* 1,242	2'77

* Returns of "Free" Hospital beds.

The table here given shows the proportion of hospital beds to the whole population in the principal cities and towns of Europe and the United States of America. The different countries are arranged in order, and under each country are placed the principal towns and cities belonging to it. A careful study of the table will bring out some very striking facts; and one class of facts is so important and striking that it has been thought well to make a classification of the different towns in Europe and America which come under the several headings. Thus, there are certain towns which provide more than one but less than two hospital beds for every thousand of their population; there are certain other towns which provide more than two, but less than four; and still others which provide more than six but less than eight, or more than eight but less than ten, or less than twelve, or less than fourteen, or less than sixteen, or less than eighteen, or less than twenty.

The table appended is a classification of the towns of Europe and America and the hospital beds they provide, on the principles just given :—

TABLE II.—*Classification of European and American Towns according to the Number of Hospital Beds provided by each for every Thousand of their Population.*

<i>Beds under Two per Thousand.</i>					
Portsmouth ...	...	0·64	Leeds ...	...	1·36
Providence (U.S.A.) ...	...	0·68	Sheffield ...	...	1·37
Baltimore (U.S.A.) ...	...	0·69	Nottingham ...	...	1·40
Cleveland (U.S.A.) ...	...	0·76	Dundee ...	...	1·60
Hull ...	...	0·96	St. Louis (U.S.A.) ...	...	1·66
Philadelphia (U.S.A.) ...	...	1·02	London ...	...	1·91
Salford ...	...	1·25			
<i>Beds between Two and Four per Thousand.</i>					
Bradford ...	...	2·20	Manchester ...	...	2·83
Liverpool ...	...	2·40	New York (U.S.A.) ...	...	3·30
Belfast ...	...	2·53	Glasgow ...	...	3·44
Birmingham ...	...	2·58	Newcastle ...	...	3·48
Königsberg (Germany) ...	...	2·65	Warsaw (Russia) ...	...	3·69
Bristol ...	...	2·70	Edinburgh ...	...	3·80
Boston (U.S.A.) ...	...	2·77	Berlin (Germany) ...	...	3·85
<i>Beds between Four and Six per Thousand.</i>					
Madrid (Spain) ...	...	4·00	Munich (Germany) ...	...	5·04
Amsterdam (Holland) ...	...	4·66	Moscow (Russia) ...	...	5·16
Vienna (Austria) ...	...	4·84	Magdeburg (Germany) ...	...	5·35
Dresden (Germany) ...	...	4·89	Leipsic (Germany) ...	...	5·79
<i>Beds between Six and Eight per Thousand.</i>					
Dublin ...	...	6·39	Cologne (Germany) ...	...	6·96
Hanover (Germany) ...	...	6·49	Prague (Austria) ...	...	7·30
Frankfort (Germany) ...	...	6·66	Dantzic (Germany) ...	...	7·63
Stockholm (Sweden) ...	...	6·94			
<i>Beds between Eight and Ten per Thousand.</i>					
Dusseldorf (Germany) ...	...	8·19	St. Petersburg (Russia) ...	...	9·08
Buda-Pesth (Austria) ...	...	8·26	Paris (France) ...	...	9·83
Breslau (Germany) ...	...	9·00			
<i>Beds between Ten and Twelve per Thousand.</i>					
Stuttgart (Germany) ...	...	...	...	...	11·40
<i>Beds between Twelve and Fourteen per Thousand.</i>					
Naples (Italy) ...	...	...	...	...	12·62
<i>Beds between Fourteen and Sixteen per Thousand.</i>					
Strassburg (Germany) ...	...	...	...	...	14·55
<i>Beds between Sixteen and Eighteen per Thousand.</i>					
Milan (Italy) ...	...	...	...	...	17·28
<i>Beds between Eighteen and Twenty per Thousand.</i>					
Rome (Italy) ...	...	...	...	...	18·28

A glance at the first and last groups of towns in this table shows that nine times as many beds per thousand are provided by the last as by the first group. London is one of the group of towns which provide the smallest number of charitable beds for their population. The city of Rome stands at the opposite extreme, and is alone in providing more beds per thousand of the population than any other town or city in Europe or America. These facts, whichever way they be taken, are of profound significance. It is open to the inhabitant of Rome, on the one hand, to claim that his city is the most charitable and benevolent of all the cities in the world, and to affirm that this is due to the fact that Rome is the Mother of Christendom, and the divinely chosen depository of the true Christian faith. On the other hand, the inhabitant of London may, with equal justice, urge that the social condition of the poor of London is vastly superior to that of the poor of Rome, and that the industrial population of the British metropolis, as compared with that of the Italian, shows a much higher degree of self-help and manly independence of character. It is open to the inhabitant of London to go further, and to affirm that the Protestant Christianity which has London for its centre has a much more practically beneficial effect on the intelligence and character of its adherents than has the Roman Catholic Christianity which has its centre at Rome.

On this question of the influence of different forms of Christianity on the character and material prosperity of the working classes, it is important to ascertain if Roman Catholic towns and cities generally, as compared with Protestant towns and cities generally, confirm the impression produced by a comparison of London with Rome. A second glance at the classified Table (II.) shows that the larger comparison quite bears out the testimony of the more limited. Taking the group of thirteen towns which have the smallest number of beds to population—that is, less than two per thousand—we find that they are all either British or American, and that they are all, if not exclusively, at least mainly, Protestant. Now, taking a corresponding group of thirteen towns and cities which provide the largest number of charitable beds to population, we find that they are all largely, and most of them almost exclusively, Roman Catholic.

What is true of the towns and cities taken separately is also, as might have been anticipated, equally evident when a comparison is made between Protestant and Roman Catholic countries. Eng-

land and Scotland compare favourably with Ireland, if it be considered an evidence of prosperity when little charitable medical relief is required by the population. Similarly, America compares favourably with Europe, and Germany with France, Italy and the Low Countries. It is not necessary to pursue this comparison further. The Roman Catholic may, as it has been pointed out, insist that it is the greater benevolence of his form of Christianity which has provided more generously for the needs and distress of the sick poor. The economist, however, will incline to the view that the poor are less numerous in Protestant countries, and less needy and distressed. He will consider that for practical wear and tear in this world Protestant Christianity has proved itself the superior of its Roman Catholic rival.

It is possible to make certain other comparisons of much economic value by a careful study of the two tables. The larger cities, for example, may be compared with the smaller, the seaport with the inland towns, and the manufacturing with the agricultural. It is specially important to note that towns and cities which possess medical schools have generally a larger proportion of beds to population than other towns of similar size and character which have no schools of medicine. To this rule London appears to be an exception; but the exception is only in appearance. In London, the poor law steps in to supplement the deficiencies of private charity; and the poor law infirmaries, including fever hospitals, provide a larger number of beds than all the voluntary, endowed, and special hospitals put together. This, however, still leaves the comparison of Protestant and Catholic countries and towns unaffected.

It seems to be the proper place here for urging certain important considerations which bear upon the whole question of charitable medical relief. It is necessary to consider at the outset whether, in mixing up together inextricably the question of charitable medical relief with that of medical education we are doing the wisest and best thing that is possible for charity and for education. A volume might be written on this subject, and it might be entirely inconclusive when written. But the supporters of voluntary hospitals, and the patients who are treated at those institutions, have much to urge in favour of the separation of voluntary medical relief from medical education. Even those who stop short at such an extreme measure as separation, ardently desire to see great and important changes made, and that for what they consider excellent reasons.

The present arrangement, which yokes philanthropy to medical education, introduces a great deal of complexity where simplicity is of all things most desirable, and a conflict of divergent interests where unity of motive and of action ought to be everywhere perfect and complete.

The most ardent medical educationist must admit that both the endowed and the voluntary hospitals of this country were, in the first instance, founded for the medical treatment and relief of the sick poor. Medical education has been gradually tacked on to them, principally as a matter of convenience or necessity—of convenience, however, not for the poor who are treated at hospitals, or for the benevolent who have founded and who continue to support them. The persons for whose convenience and advantage medical education has been tacked on to charitable hospitals are medical practitioners, medical students, and, of late years, trained nurses. Now it is not intended here to pronounce either for or against the existing marriage between medical charity and medical education. But it is desirable to state clearly the actual logic of the present situation, and also how the arrangement has come about.

It cannot be denied that the hospital subscriber, if no other person, has some reason to be dissatisfied with the present state of things. He is allowed, in homely phrase, to "pay the piper," but he is by no means permitted to "choose the tunes." On the contrary, he is, as far as possible, hustled, ignored and opposed. It is hardly necessary to say that there can be no permanence about a state of things which takes payment from one person, and puts power into the hands of another. In all well-ordered States, taxation and representation are the necessary complements of one another; and in all private businesses, of whatever kind, the man who pays is the man who rules. It is not possible to conduct any sort of business, whether public or private, philanthropic or commercial, on any other principles than these. They are the economic bases of all practical affairs. To attempt to conduct either voluntary or endowed hospitals on any other principles is not only to risk, but to invite and to insure, failure of the most disastrous kind.

It need not be supposed for a moment that practical people like Englishmen will permanently throw overboard the first principles of economics in their conduct of hospital business, any more than they will in their management of their other public and private affairs. The Englishman, at any rate, will always assert his rights.

If it be found that the present arrangement of honorary medical officers tends to disorganise and to impede the free action of charitable medical relief, we shall soon see steps taken to put an end to it. Many intelligent philanthropists have long held that the only way to insure simplicity and efficiency, with economy, in hospital administration is to insist upon the adequate payment of all hospital officials, from the highest to the lowest—from the senior physician to the humblest scrubber of the wards.

The payment of such medical officers as now hold honorary appointments in hospitals is a question which may come up for discussion at no distant date. There are some who think its effect would be to drive away men of the highest scientific ability from the voluntary hospitals and medical schools, and to substitute for them a class more akin to the present poor law medical officers. So far from this being the case, it is highly probable that the very opposite would be the result. At the present time, the managers of hospitals are practically limited in their choice of honorary physicians and surgeons to those men who have enough of money to enable them to live almost entirely without private practice for a considerable number of years. It is well known that the effect of the possession of a little money is in many instances to damp enthusiasm and to "dull the edge of industry." If hospitals were prepared to pay, even very moderate salaries, for their working physicians and surgeons, they would have the choice of the very best men in the whole medical profession, and there can be no doubt whatever that a much more broadly intelligent and practically scientific class of physicians and surgeons would thus become available for hospital patients and the public generally, and medical and surgical science would advance with remarkably increased rapidity.

But whatever may be in store for hospitals and their officers in the future, it cannot be denied that the present state of things, which reduces to a minimum the influence of the lay supporters, is economically indefensible and practically injurious. It is more than probable, however, that changes of the kind here contemplated will be slow in the making. If that be so, it is desirable that honorary medical officers should seriously consider how they may, by wise self-restraint, make practically effective a system which is theoretically so unsound. The well-being of the patient can never, in a voluntary hospital, be regarded as of secondary importance; nor will it be found possible in practice to carry on the administra-

tion of any hospital smoothly and efficiently where the lay manager, who supplies the sinews of war, is set at naught or little esteemed. The question of medical education is one of imperial importance and dimensions ; and if the difficulties of administration on present lines should so increase as to impede the free and effective action of medical charities, there is no doubt that the State would provide the resources for the proper training and equipment of competent medical practitioners, and that voluntary hospitals would resume their original functions. The persons who have most to lose by such changes as have been indicated are the honorary medical officers of hospitals ; and they will do well, for their own sakes, to accommodate themselves with gracefulness and loyalty to their fortunate circumstances. The voluntary and endowed hospitals of the country constitute one of the noblest monuments of our Christian civilisation, and the practical English people will take abundant care that they are not permitted to be divorced from the great objects which their founders and supporters have always had in view—the relief and restoration to health of the sick and distressed poor.

With regard to the general question of the proportion of beds to population, it must always be the object of philanthropists and sound economists to reduce the number to the lowest possible level which is compatible with the adequate care of those who, in the hour of sickness, have no resource but the hospital. Charity is no longer charity, but an injury, when it diminishes self-help, and points the way to pauperism.



CHAPTER XV.

THE INDIAN EMPIRE.

THE present system of medical relief in India owes its establishment to the British Government. Between the periods of the Buddhist ascendancy, 300 B.C., and the British occupation, no medical institutions existed in India. During the Mahomedan rule, "hukeems" or physicians were attached to the Courts or to the establishments of rich persons, but the condition of the sick poor was deplorable. Not only were these totally uncared for, but the lepers, who were neglected and shunned, were forced to become wandering mendicants; and lunatics, if dangerous, were chained to some convenient building, or, if harmless, were, like the lepers, left to roam at large. As the stations occupied by the British gradually became more numerous, it was found that the medical officers attached to the military forces were inadequate to supply the wants of their own service and those of civilians as well. Supplementary medical officers were therefore appointed, termed civil surgeons, and hospitals were established, to which not only civil officials and their staffs, but also the police and the public, were admitted as patients. This movement not sufficing to meet the wants of the native population, although that population was yet only partially alive to the advantages of medical aid, applications were received for the establishment of branch dispensaries in various parts. The Government provided then, as they do now, the funds necessary for the erection of these institutions, their expenditure when established being defrayed out of local funds by municipalities, and out of patients' payments and miscellaneous contributions. Some of the institutions receive endowments in the form of money; but although the site for the building has frequently

been given, none of these dispensaries have been endowed with lands. During recent years, hospitals and dispensaries have been established in the independent tributary States by native princes, who have been influenced and aided in the matter by the political and medical officers attached to the Residencies. The main objects in reference to the medical relief system which the Supreme Government of India has in view are : (1) To place the entire management of the institutions in the hands of the local governments, subject to an official Government inspection ; and (2) to afford facilities to encourage the supply of an adequate number of native medical men to meet the ever-increasing demand for their services. With a view to this end, free or assisted education is given at various medical schools to a large number of students, and scholarships and prizes are awarded. The prejudice against Western medical and surgical methods of treatment is fast dying out, and consequently the medical ranks are now more largely recruited from the higher native castes. Results show a steady advance in the number of native candidates, and posts of all but the highest responsibility are filled by East Indians. The Medical Service of India is a recognised Government department. It consists of surgeons-general, civil surgeons, and members of the subordinate Medical Service, which comprises assistant surgeons and hospital assistants. The dispensaries are managed chiefly by members of the subordinate Medical Service. There is a regular Government inspection of all medical institutions once or twice during the year by the civil surgeons.

THE DISPENSARIES OF INDIA.

The dispensary system of India forms the most striking feature in its medical history. The dispensaries not only supplement the hospitals, in many instances, but they are also separate establishments with distinct administrations, and possess the attributes of hospitals on a small scale. The majority of those who are treated are outdoor patients, but many of the dispensaries possess beds, varying in number from two to fourteen, for the reception of in-patients. The dispensaries, together with the hospitals, are divided into three classes, but they are practically under one administration, and are controlled by the surgeons-general attached to the various Presidencies, who work under State regulations. The institutions are inspected once a year by a civil surgeon and a

deputy sanitary commissioner of the district to which they belong. They are directed by a committee of supervision, and are under the charge of a hospital assistant or assistant surgeon belonging to the Medical Service. The popularity of the dispensary system is shown by the fact that the increase in the number of these establishments is very rapid.

Up to the year 1883 no systematic classification of Indian dispensaries existed. At that date the new Local Self-Government Act came into force, causing a great change in respect to the relations between the dispensaries and the State. Under the new arrangement most, if not all, of the dispensaries became local institutions, supported by local funds, but still under Government supervision. The necessity of a definite scheme of classification which would facilitate comparison between the various institutions, for Government purposes, became apparent. A circular letter was accordingly issued to the chief officials of the various governments, and to the commissioners of different Provinces of India, inviting them to submit schemes of classification. This measure resulted in three alternative systems being offered for the consideration of the Governor-General in Council by the officials who had been applied to. These schemes were as follows :—

1. Classification according to the number of patients treated, or with reference to the presence or absence of house patients amongst them, as distinguished from outdoor patients.
2. Classification according to the status of the medical officer in charge, viz. assistant surgeon, hospital assistant, &c.
3. Classification with reference to the financial relations of the institutions to the State, whereby private charities are distinguished from those supported by local public funds, and both from dispensaries maintained by the State for its own purposes.

After careful consideration these proposed classifications were rejected by the Governor-General in Council. A classification based on the number of patients or the methods of treatment did not appear to the Council to be a good one, as it would depend on details which vary in practice from many causes of local or even personal origin. Neither did a classification according to the status of the medical officers in charge commend itself to the Government of India, that being a matter which could not be regulated on identical principles in all parts of the country. For the purposes of the Supreme Government, what was wanted was a classification of dispensaries with reference to their financial

constitution and relations. The Governor-General in Council has accordingly ordered that the following classification should be observed in the preparation of Statement No. 1 in the Inspectors' Annual Report to the Government of India, a return which shows the increase and decrease of hospitals and dispensaries, together with their classification.

New Classification.

Class I.—State hospitals and dispensaries, including all institutions maintained by provincial funds and under Government management.

Class II.—Local fund institutions, including all institutions which are vested in local boards or guaranteed or maintained by local funds.

Class III.—Private institutions of two descriptions, to be separately shown as follows: (*a*) those entirely maintained at the cost of private individuals or associations (the fact that Government supplies superior inspection or registers ought not to remove an institution from this category); (*b*) institutions supported by private subscriptions or guarantee, but receiving aid from Government or local funds.

This new classification is only intended to be adhered to in the Inspectors' Annual Report, and local governments and administrations are free to adopt any other form of classification or cross-division which they may deem fit.

DEVELOPMENT.

The most important movement of late years in connection with medical relief in the Empire has been the extension of skilled medical treatment to women through the medium of their own sex. The necessity of such a provision was obvious, as popular prejudice restrained most of the women from applying for assistance at the institutions presided over by the other sex, whilst the ignorant treatment they were subjected to in default of this assistance reflected on the health of the whole population. The Zenana Mission, whose head quarters are in England, by educating and sending out female medical missionaries to the zenanas, and by establishing hospitals, has done and continues to do good work to mitigate the evil. The National Association for Supplying Female Medical Aid to the Women of India, commonly known as the "Lady Dufferin Fund," has a more extensive field of action. It

may be said to owe its existence to the direct initiative of the Queen-Empress, who personally desired the Countess of Dufferin, when leaving for India, to inquire as to the best means of assisting the women of India, both morally and physically. The first prospectus of the Association was issued at Simla in 1885, and the objects of the Fund were stated to be as follows :—To supply (1) medical tuition, including the teaching and training in India of women as doctors, hospital assistants, nurses, and midwives ; (2) medical relief, including the establishment of hospitals, dispensaries, and wards, all of which should be under female superintendence, for the treatment of women and children ; (3) trained nurses and midwives.

This Association, of which the Queen is patron, has rapidly extended its operations since 1885. In 1890 there were eleven provincial branches under the central committee, and attached to these provincial branches there were 100 local and district associations. The number of women who received medical aid under the Association during the same year amounted to 411,000. Thirteen lady doctors and twenty-seven assistant surgeons and female practitioners were working in connection with the Fund, and 204 pupils were studying in the medical schools. The medical staff still receives recruits from England, but it is hoped that in time the majority of posts will be filled by the native candidates. Every encouragement in the way of scholarships is offered by the many supporters of the Fund, both native and English.

HOSPITALS, BEDS, AND PATIENTS.

Table showing Population, Number of Hospitals and Number of Beds in the year 1889, and the Number of In- and Out-Patients in the years 1888 and 1889, in the Provinces and Presidencies of India.

Provinces and Presidencies.	Popula- tion.	No. of Hospitals.	No. of Beds.	No. of In- patients.	No. of Out- patients.	No. of In- patients.	No. of Out- patients.
	1889.	1889.	1889.	1888.	1888.	1889.	1889.
Bombay	21,888,976	244	3,505	37,248	1,677,928	37,549	1,659,065
Madras	20,916,629	392	3,620	43,447	2,204,650	46,176	2,471,427
Bengal	69,336,861	261	2,152	25,731	1,106,700	28,981	1,179,843
North-Western Pro- vinces and Oudh	44,107,869	279	2,945	51,968	2,375,765	51,705	2,588,388
Central Provinces	3,517,185	104	890	7,598	842,367	8,156	840,087
Punjab	16,842,264	208	2,869	43,666	2,087,034	45,125	2,266,916
Lower Burma	3,725,762	35	949	15,600	213,057	15,805	233,689
Upper Burma	1,088,945	37	439	3,567	43,000	4,409	58,595
Hyderabad	2,072,671	44	268	2,181	254,416	2,773	270,431

BENGAL

INADEQUACY OF PROVISION.

Great advances towards an adequate system of medical relief have been made in Bengal during the last few years, and between 1887 and 1889 twenty-seven new dispensaries were opened. Although this increase is very considerable, there is still much left to be desired when the number of dispensaries is compared with the population, and with the proportion it bears to the amount of medical aid provided in other parts of India. Thus, Bengal, with a population of 69,536,861, contains 261 hospitals and dispensaries, whilst Madras, with a population of 29,916,629, has 392 medical institutions, and Bombay, with 21,888,976 inhabitants, possesses 244 hospitals and dispensaries. In other words, the proportion of hospitals and dispensaries to population in the three chief Presidencies is as follows: in Bengal, as one institution to 270,000 inhabitants; in Bombay, as one to every 89,700 inhabitants; and in Madras, as one to every 75,567 inhabitants. The proportion of indoor relief afforded in Bengal is especially inadequate. The number of available beds in 1889 was 2,152, which gave an increase of twenty-seven beds only since the previous year, whilst the number of patients applying for admission increased to the extent of 3,230. This increase in the number of in-patients is encouraging, considering that popular prejudice against entering hospitals is more strongly evinced in Bengal than in any other part of the Indian Empire. The Bengalese show a strong preference for the privacy of home treatment. Where, however, as is the case at some dispensaries, there are separate rooms provided for the occupation of the better classes, in which the patients can be attended by their own friends, they have been largely resorted to. The increase in the number of out-patients is also steady and satisfactory. They numbered 1,179,843 in 1889, as compared with 1,106,700 in 1888, or an increase of 73,143 out-patients during the year. The rate of increase in attendances at the different dispensaries varies considerably, being mainly dependent on the popularity of the medical officer in charge. Hence the desirability of paying the doctors liberal salaries so as to secure the highest efficiency, and, where economy has to be exercised, to find other directions in which to apply it.

NATIONALITY OF PATIENTS.

In Bengal the Hindus form the largest proportion of the patients, but in some dispensaries in Eastern Bengal their numbers are equalled and even surpassed by Mahomedans. The attendance of Europeans and Eurasians' is insignificant in comparison with that of other races.

MANAGEMENT OF DISPENSARIES.

The general desire and intention of the Medical Department of the Indian Government to vest the local authorities, not only with the management, but with the chief financial responsibility of hospitals and dispensaries, has been largely responded to in Bengal. The majority of new institutions opened during the last few years have been municipal institutions belonging to Class II., which are, of course, all under the management of local bodies. These institutions numbered 125 in 1889, out of a total number of 261. According to the statutes relating to medical institutions, a still larger number of dispensaries should be under municipal direction, for as many as twenty-six institutions now grouped under Class III. (*b.*) receive contributions from municipalities, in some cases to a considerable extent. The dispensaries of Bengal are divided into the different classes as follows :—

Class I., or State institutions (6 in number).

„ II., or local or municipal dispensaries (125).

„ III. (*a.*), or private institutions (71).

„ III. (*b.*), or private institutions receiving grants-in-aid (59).

INSPECTION OF DISPENSARIES.

The civil surgeons are expected to visit each charitable medical institution in their respective districts not less than twice annually. This rule is not strictly adhered to, although a decided improvement is shown during the last year or two. Of the 261 institutions open in 1889, seven were not visited by the civil surgeons at all ; sixty-two received only one visit ; whilst at the head quarters of the district fifty were each visited daily. Although the meetings of the municipal authorities on behalf of the dispensaries are not recorded in the reports of the civil surgeons, they are stated to be more frequent and systematic than the visitations of local committees, which vary

greatly in regularity and in the amount of interest shown. These local committees are required to meet at least once a quarter, but the statistics prove that this rule is very inefficiently carried out. Some committees display a laudable zeal in the fulfilment of their duties; and a slight but steady improvement is generally visible. There are forty-five private dispensaries in the Province, which are managed entirely by private persons, are under no committee and are subject to no inspection of any kind.

INCOME AND EXPENDITURE OF BENGAL HOSPITALS AND DISPENSARIES.

Table showing the Income and Expenditure of the Hospitals and Dispensaries in Bengal for the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government ...	18,044	On establishment ...	2,37,905
„ European medicines ...	573	„ bazaar medicines ...	10,452
For diet of police cases ...	2,338	„ European „ ...	55,368
Special allowances ...	1,963	„ diet ...	46,798
From local funds ...	61,832	„ miscellaneous charges	34,081
„ municipal funds ...	1,61,843	„ building and repairs ...	38,136
„ interest on investments	36,756	Invested during the year	14,355
„ sale of securities or withdrawal of deposits ...	14,462		
„ European subs. ...	17,115		
„ native subscriptions ...	1,19,623		
Total ...	4,34,549	Total ...	4,37,095

The cash balance on January 1, 1889, amounted to Rs. 38,783, which if added to the income of that year makes a total of Rs. 4,73,332. The cash balance on December 31, 1889, amounted to Rs. 36,237.

The total income of the dispensaries in Bengal has increased considerably during the last two years, an indication that the work done by them is appreciated by the public, seeing that the largest contributions have been derived from local sources. The increase in native subscriptions is more especially encouraging, and the greatest proportion contributed towards the support of institutions under Classes III. (a.) and III. (b) comes from native sources. It had been anticipated that the dispensaries, when transferred to the management of municipal and local authorities, would experience

a considerable diminution in the sums received from the subscriptions of private individuals. Although this has been found to be the case in some parts of India, in Bengal, on the contrary, subscriptions from private sources have increased considerably during the last three years, and they have, indeed, formed 30 per cent. of the total income of Class II. dispensaries.

The system of vesting the management of dispensaries in the hands of local authorities has proved very successful in Bengal. The municipal and district boards show great interest in the institutions under their charge, and as a rule respond liberally to the financial calls made upon them. Twenty-nine dispensaries have each received grants of from Rs. 1,800 to 9,640 annually from these authorities during the last three years; and three municipalities—those of Gya, Ula, and Jessore—have made permanent provision for their institutions by increasing the sums invested as an endowment fund, although this course has necessarily entailed a considerable addition to the annual charge on the rates. Thus, it appears that the Municipality of Gya placed the donations to their dispensary to the credit of an endowment fund, although they might fairly have spent them on current expenses, and so have reduced the expenditure of the local authorities.

On the other hand, instances of great neglect on the part of local authorities are mentioned. The District Board of Hooghly, for example, allowed the managers of the dispensary of Bundipore, for which they were responsible, to spend the whole of their invested funds. This step was rendered necessary by the refusal of the Board of Hooghly to contribute the requisite funds, and when these investments were exhausted, they declined to vote any supplies, and so the dispensary was finally closed in December 1889, and the whole district was thus left without medical aid.

Some municipalities have been entirely relieved from financial obligations in respect of their dispensaries, owing to the provision of a sufficient income from other sources. The increase of Government contributions in 1889 was merely nominal. It is satisfactory to note an increase in the salaries of the medical officers which are paid by the State, as this fact goes to show that there is a desire to favour the employment of the higher grades of the Medical Service.

One important feature in the financial system of Indian dispensaries is the practice of adding annually to the amount of property invested. The "Dispensary Manual," which contains the regulations for the government of hospitals and dispensaries, lays down

the rule that all deposits under Rs. 3,000 should be put in the Post Office Savings Bank, and when they reach this sum that they should be invested in Government securities. All sales of securities must receive Government sanction. It is usual to invest in this way from time to time any surplus revenue, and also the sums placed on deposit with the Post Office or those derived from donations.

BOMBAY PRESIDENCY.

PATIENTS AND ACCOMMODATION IN 1889.

The increase in the number of patients seeking medical relief in the Bombay Presidency does not appear to be so rapid as in many other parts of India. The reason for this is not far to seek. In 1889, 37,549 in-patients and 1,659,065 out-patients were treated, against 37,248 and 1,677,928 respectively in the previous year, showing an increase of 301 in- and a decrease of 18,863 out-patients in 1889. This decrease is stated to be mainly due to a healthy season. There is, however, an obvious desire to increase the opportunities of sick relief in the Presidency, and in the year 1889 seven new dispensaries were opened, which raised the number of Bombay medical institutions, viz. hospitals and dispensaries, to 244. Thirteen hospitals and dispensaries in connection with dockyards, railways, police, and residencies, are not included in these figures. These thirteen institutions contained altogether ninety-eight beds, and received 3,001 in-patients during the year 1889. The need of more hospital assistants, though it exists, is less felt in Bombay than in most other Indian provinces. This is probably due to the fact that medical schools are more widely distributed over this part of the Empire than elsewhere.

NATIVE SUPPORT OF MEDICAL INSTITUTIONS.

The liberality of native princes and gentlemen is especially apparent in Bombay. No less than Rs. 1,88,000 were contributed by them during 1889 for various medical purposes. His Highness the Gaekwar of Baroda contributed a sum of Rs. 500 per mensem for three years towards a Professorship of Therapeutics at the Grant Medical College. Mr. Framji Dinsha Petit gave a sum of Rs. 75,000 for the construction of a laboratory for medical scientific research in the vicinity of the same college. His Highness the

Thákor Sáheb of Bhávnagar gave Rs. 1,00,000 towards a training institution for nurses at the Jamsetji Jeejeebhoy Hospital, and for a bust of her Majesty Queen Victoria for the Victoria Jubilee Technical Institution. The trustees of the Pársi Panchárgat Fund contributed Rs. 2,000 for the construction of a mortuary for the Pársis at the Jamsetji Jeejeebhoy Hospital.

NATIONALITY OF PATIENTS.

The various nationalities frequenting the hospitals and dispensaries in 1889 were distributed as follows: Europeans, 9,067; Eurasians, 3,610; Hindus, 1,147,955; Mussulmans, 444,296; other races, 91,686.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries in the Bombay Presidency for the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government ...	7,51,471	On establishment ...	7,16,266
„ local funds ...	73,246	„ bazaar medicines ...	13,870
„ municipal funds ...	1,45,991	„ European „ ...	91,763
„ sale of European medicines ...	48,882	„ diet ...	1,06,565
„ miscellaneous sources	57,100	„ miscellaneous charges	1,18,714
„ interest on investments	19,137	„ building and repairs ...	37,400
„ European subs. ...	34,921	„ investments during the year ...	42,125
„ native subscriptions	1,942		
Total ...	11,32,690	Total ...	11,26,703

In addition to the above-mentioned sources of income, there was a cash balance in hand on the 1st of January, 1889, of Rs. 1,12,810, and a further sum of Rs. 2,578 was realised by the sale of investments during the year, making the total available income from all sources Rs. 12,48,078.

The income during 1889 shows a fair rate of increase when compared with that of the previous year, the actual figures being Rs. 12,48,078 in 1889, and Rs. 12,25,385 in 1888. This increase in revenue was pretty evenly distributed over nearly every item of income. On the other hand, the net expenditure was slightly less in 1889 than in the preceding year. It is part of the policy of

the management to increase the invested capital year by year, and at the end of 1889 no less a sum than Rs. 4,44,875 was represented by investments.

THE INSPECTION OF HOSPITALS AND DISPENSARIES.

There is a thorough system of inspection throughout this Presidency. The inspector directs attention to any point in the administration which he considers defective, although he awards praise and blame with strict impartiality. Thus, the inspector's reports for 1889 bring out clearly the strong and weak points in the hospitals throughout the Bombay Presidency. At the Sassoon General Hospital, Poona, for instance, he praises the discipline, cleanliness, nursing, and general order throughout the establishment, whilst he strongly impresses upon the authorities the urgent need which exists for further medical assistance if the dispensaries are to be properly supervised.

At another institution, which was found to be generally efficient, he calls attention to the method upon which the books and records are kept, and insists upon the new system being adopted, as laid down for all hospitals in the circular order governing such matters. The need for better and more ample accommodation for out-patients is noted at the Jamsetji Jeejeebhoy Hospital, where the obstetric institution is stated to be in "as good order as such an inferior place can be"—a gentle hint, which we hope the authorities will promptly take to heart. At an ophthalmic hospital the need for more beds is enforced, and the desirability of erecting an entirely new building in place of additions is pointed out, on the ground that "it seems doubtful if the walls would stand the added weight of another floor being put upon them." The probable abuse of a dispensary by those who can afford to pay for their medical treatment when ill is mentioned in one instance, and the conversion of an old farm-shed for hospital use is condemned in another. So the inspector proceeds with strict impartiality to put his finger upon every weak spot, to the no small advantage, we doubt not, of the comfort and efficiency of the medical institutions throughout Bombay.

MADRAS.

GROWTH, POPULATION, AND PATIENTS.

In no Province of India is the desire to establish an adequate system of medical relief more visible than in Madras. The Government is willing to assist in the matter of medical advance throughout the Empire, and, where suitable sites and a small guaranteed income are forthcoming, the expenses entailed in the erection of new institutions are usually defrayed by the State. Madras has availed itself of this liberality on the part of the Government to a large extent, and during the years 1888 and 1889 no less than fifty-two new establishments were added to the medical institutions of the Province. Of this number, nineteen were opened in 1889, bringing the total number of hospitals and dispensaries in that year up to 392. Thus, one dispensary for every 75,567 of the population was provided. This contrasts very favourably with Bengal, where medical institutions compared to population are as one to 270,000. The number of available beds in Madras in 1889 was 3,629, or one to every 7,967 of the inhabitants. Some districts are very badly provided with in-patient accommodation, and 189 dispensaries contain no beds at all. The total number of in-patients treated in 1889 was 46,176, against 43,447 treated in the previous year. This gives an increase of 2,729 in-patients in 1889 over 1888. The out-patients numbered 2,471,427 in 1889, and 2,264,650 in 1888, which shows an increase of 206,777 in 1889. The number of patients seeking medical relief in the dispensaries of Madras is now a large percentage of the population, and the popularity of the medical establishments is rapidly increasing. The Province is not exempt, however, from the difficulties experienced elsewhere in procuring a sufficient and competent staff of medical men. This want not only acts deleteriously in the case of the patients, but also affects the reliability of medical and statistical returns from the dispensaries. Most of the new institutions are placed under Class II., and are therefore under local management. The number transferred to this class from other classes, however, is not so large as in some Provinces. It was apprehended that private subscriptions would be diverted from the medical institutions when vested in the hands of local authorities, who would become responsible for all necessary outlay. That this apprehen-

sion has been verified to some extent may be concluded from the fact that European and native contributions have shown a perceptible decrease during the last few years, which it is difficult to account for in any other way.

NATIONALITY OF PATIENTS.

The various races of patients attending the medical institutions of Madras in 1888 were distributed as follows : Europeans, 7,693; Eurasians, 47,869; Hindus, 1,666,586; Mussulmans, 317,829; and other classes, 268,120.

LYING-IN DEPARTMENT.

The Medical Department of the Presidency of Madras has made special efforts to secure a competent staff of midwives for the hospitals and to attend patients in their own homes. During 1888, 157 of these women were employed by the district boards and municipalities. The midwives are attached to the local hospitals and dispensaries. Their work has been reported as unsatisfactory on the whole, and the reason appears to be that there is a want of adequate supervision exercised over them. It is proposed that a new method of payment should be adopted, by means of which their fees will be partly regulated by results. This plan has been put into operation in some localities, and is said to answer very well.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of the Madras Presidency for the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government	2,49,742	On establishment	5,27,982
" European medicines ...	30,040	" bazaar medicines ...	21,285
" diet of police cases ...	77,188	" European medicines ...	1,46,918
" local funds	4,82,619	" diet of patients ...	1,51,861
" municipal funds ...	1,41,135	" miscellaneous charges	1,13,322
" interest on investments	19,294	" building and repairs ...	67,874
" European subs. ...	8,818	" invested amount ...	3,337
" native subscriptions	10,223		
Total	10,19,059	Total	10,32,579

If the sum of Rs. 13,520 obtained from securities and withdrawal of deposits is added to the total income, the net sum derived from all sources amounts to Rs. 10,32,579.

The principal increase in contributions was from municipal and local boards—an increase which was necessitated by the diminished grants of the Government, and also by the requirements of the new institutions. The expenditure for 1889 exceeded that of the previous year by Rs. 20,670—a very moderate sum considering the increase in the numbers of patients and dispensaries.

THE CENTRAL PROVINCES.

Hospital treatment does not appear to have reached its zenith of popularity in the Central Provinces of India. Though the inhabitants of many districts are still unprovided with necessary medical aid, in many places where accommodation is already secured it is not utilised to the full extent. Of the total number of beds available throughout these Provinces, 40 per cent. only are in daily occupation. The number of patients in 1889 had increased over that of the previous year, but the percentage of population receiving treatment was rather less, being 9.62 per cent. in 1889, against 9.64 per cent. in 1888. Two new private dispensaries were opened during the latter year, but as two Government establishments were closed, the number of institutions remained identical.

The only notable extension in 1889 was in connection with the Mayo Hospital at Nagpur, where a female department was opened in connection with Lady Dufferin's Fund. The establishment consists of a single block, containing a dispensary; two wards, containing six patients in each; and eight separate cubicles, in all of which general diseases are treated. There is also a large confinement ward, a midwifery ward for six patients, separate rooms for four expectants, and all the necessary offices. This block is situated within a walled inclosure. Outside the walls is a department for the matron and twelve pupils. The establishment is at present under male medical management, and is administered as a branch of the Mayo Hospital. A female hospital assistant will be provided as soon as possible.

The financial arrangements with the Government differ in the Central Provinces from the system to be found in force elsewhere throughout India. In other Provinces the salaries of hospital

assistants are defrayed by the State, but in the Central Provinces the provincial funds are charged with this item of expenditure. It is also a special feature of the system in this part of India that the native chiefs take an important part in the administration of the hospitals. Thus, of the 104 medical institutions in these Provinces, twenty-one are maintained by feudatory chiefs out of their private revenues.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of the Central Provinces for the year 1889.

INCOME.			EXPENDITURE.		
		Rs.			Rs.
From Government ...	...	46,615	On establishment ...	...	63,679
„ local funds ...	...	5,865	„ bazaar medicines ...	...	2,575
„ municipal funds ...	...	55,003	„ European medicines ...	...	26,047
„ interest on investments ...	...	1,745	„ diet ...	...	7,843
„ European subscriptions ...	...	4,694	„ miscellaneous charges ...	...	7,842
„ native subscriptions		19,748	„ building and repairs ...	...	17,825
Total ...	...	1,33,670	Total ...	...	1,25,811

LOWER BURMA.

SPECIAL FEATURES.

Although there are impediments to a completely satisfactory organisation of medical relief in Burma, the work accomplished will compare favourably with many other parts of India. The number of dispensaries open in 1889 was thirty-five. There is, therefore, one dispensary to every 105,907 of the population, which is a considerably better provision than that to be found in Bengal. Though this number of dispensaries has not been increased for several years, the non-extension does not arise from neglect on the part of local authorities or the Government. There is in Burma a large armed police force, for whom medical provision on a large scale is necessary. In due course of time it is intended to withdraw these military police, and many buildings suitable for the purposes of hospitals and dispensaries will then become available

for the civil population. In consideration of this, the authorities have decided not to build any new dispensaries at present. Of the thirty-five civil dispensaries now open, thirty-three belong to Class II., and are therefore under local management. The two remaining establishments are State institutions, none being maintained by private individuals.

One great drawback to medical advance in Burma arises from the fact that the medical men in charge of the dispensaries, who are either East Indians or Europeans, do not speak the language of the country. The Burmese are especially imbued with the prejudice against European methods of medical treatment, and the difficulty of communicating with the doctors, owing to their unfamiliarity with the Burmese language, adds to the natives' objection to seek medical relief at the dispensaries. In 1888 it was decided to try the experiment of employing Burmese medical men, trained at Calcutta or Madras, in the dispensaries. The experiment is too recent to warrant a very definite opinion as to the success of the movement, but, as far as it is possible to judge, the new system seems calculated to prove beneficial in every way.

PATIENTS AND PROVISION.

During the year 1889 a considerable augmentation in the number of patients treated took place, and it is satisfactory to note that the increase mainly occurred amongst the Burmese. The number of out-patients in 1888 was 213,057, and in 1889, 233,689, showing an increase of 20,632 out-patients during the latter year. The in-patients numbered 15,600 in 1888, and 15,805 in 1889, showing a slight increase in favour of 1889. Although no new establishments were erected in Burma, the number of beds available rose from 931 to 949 in 1889. This hospital extension occurred chiefly at Rangoon, where the dispensary has done good work and exhibited great activity in every way.

NATIONALITY OF PATIENTS.

The various races applying for medical relief in Burma were represented in the following proportions: Europeans, 1,167; Eurasians, 1,956; Hindus, 10,719; Mahomedans, 8,508; Burmese 42,941. The increase in Burmese patients as compared with the preceding year is considerably greater than all the other classes put together.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of Lower Burma during the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government	10,165	On establishment	90,903
„ European medicines	1,622	„ bazaar medicines	8,657
„ sale of medicines	1,923	„ European medicines ...	39,422
„ local funds	30,347	„ diet	54,486
„ municipal funds	1,64,091	„ miscellaneous charges	18,994
„ European and native subscriptions	16,378	„ building and repairs ...	12,064
Total	2,24,526	Total	2,24,526

As compared with the previous year, there was a decrease in the expenditure of Rs. 14,925, made up under the heads of “establishment,” “miscellaneous charges,” and “building and repairs.” There was an increase, on the other hand, on “medicines” and “diet.”

UPPER BURMA.

SPECIAL FEATURES.

Until the year 1889 no statistics referring to the hospitals and dispensaries of Upper Burma were published in the Government reports appertaining to medical institutions. The organisation of the medical system being very incomplete, it is difficult to obtain statistics drawn up in the manner required by Government for purposes of comparison. Judging by the numerical strength of the institutions, Upper Burma is by no means behindhand in the amount of medical relief provided. In 1889 the dispensaries numbered thirty-seven, or one for every 53,754 of the population. There were also 439 available beds, or one bed for every 4,530 of the inhabitants. As a matter of fact, the accommodation provided is of the roughest nature, especially where the civil dispensaries are not connected with the head quarters or outposts of the military police. A large proportion of them are thus connected, and they share the services of the medical officers in charge of the military police dispensaries. Where the civil dispensaries have an independent existence, the buildings are frequently only bamboo sheds or

grass huts, and have no accommodation for the medical officer or hospital servants. As a further example of the primitive economy practised, one of the reports of these dispensaries states that "a bamboo mat-partition will soon be erected to partition off the female ward." Contrary to the system of Lower Burma, thirty-five of the dispensaries of Upper Burma belong to Class I., and are, therefore, State institutions. The remaining two being in Class II., are under local management. As in Lower Burma, no private establishments exist. Hardly any of the institutions are under the superintendence of committees, but they are all inspected by Government officials. There is a visible increase in the number of patients applying for relief, especially amongst the Burmese. In 1889, 4,409 in-patients were treated. This was an increase of 842 on the number in the previous year. The number of out-patients amounted to 58,595, being an excess of 15,595 for the year.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of Upper Burma during the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government ...	71,907	On establishment ...	58,473
„ municipal funds ...	18,408	„ bazaar medicines ...	2,877
„ European and native subscriptions ...	10,168	„ European medicines ...	17,282
		„ diet ...	7,923
		„ miscellaneous charges	7,658
		„ building and repairs ...	6,270
Total ...	1,00,483	Total ...	1,00,483

It is very difficult at present to obtain details of income and expenditure in Upper Burma. Except where maintained by municipalities, the income and expenditure are given by districts, instead of for the dispensaries in each district.

MILITARY POLICE HOSPITALS.

For every 250 of the military police force in Burma an adequate hospital establishment is provided. These institutions are under the management of the civil surgeons of the districts, who have a staff of hospital assistants under them. At all important

police outposts there is a small hospital, in charge of a hospital assistant, whilst the smaller outposts are regularly visited by the inspectors, and a medical inspection of the men stationed at the outposts is held weekly. At head quarters there is a large hospital, and to this the more serious cases are sent for treatment. In their internal economy the hospitals of the military police have been organised as far as possible in imitation of the hospitals of the Native Army. Medical comforts are purchased by the civil surgeons as required, the total expenditure being, however, limited to the Budget allotment for each year. During the year 1889 the average strength of the police force was 18,209, and the average number of sick was 1,209. The inspector reports that the majority of the ailments from which the men suffered were of an exceedingly trifling nature.

THE PUNJAB.

In the Shahpur District of the Punjab medical aid is provided to the extent of one dispensary to every 52,688 of the population ; but, owing to popular prejudice, only one-half the beds available are occupied during the year. Nevertheless, overcrowding exists to a considerable extent in some localities. The want of indoor accommodation at Delhi, for example, is very pressing. The number of beds provided at the civil hospital in that city is twenty-eight, whilst the daily average of in-patients requiring treatment was forty-eight. Owing to this condition of affairs, which has existed for a considerable period, an extension of the hospital is now contemplated. A like overcrowding exists at Khangarh, Lakki, Hangu, Swabi, and elsewhere. Five new dispensaries were established in 1889, and three more would have been opened had hospital assistants to take charge of them been procurable. Extensions have also been made at the Rawalpindi civil hospital. At Mooltan, a Jubilee Female Hospital is in process of construction, and at Hoshiarpur a Jubilee ward for eight female patients has been built, which is quite a model of its kind. Besides the aid given at the established hospitals and dispensaries, a large number of patients receive treatment from hospital assistants unattached to dispensaries where none exist. The endeavour to make the dispensaries almost entirely dependent on local support has not succeeded in procuring large private contributions. The people have so long regarded the dispensaries as part of the

Government system, that they cannot be brought to view them as dependent on their assistance in any way. The dispensary rule which enacts that all subscriptions shall be paid to the credit of the local authority charged with the maintenance of each dispensary, which is thereby relieved of an expenditure it would otherwise incur, acts as a direct check to subscriptions. Few people are willing to relieve the local authority of a charge it is compelled to meet.

In the Punjab an attempt is being made to place all dispensaries under assistant surgeons, because they possess higher qualifications than hospital assistants. Some trouble is occasionally caused by the unreliability of the last-named officers. The female hospitals especially deserving mention in the Punjab are the Maternity Hospital, Amritsar, and the Lady Aitchison Hospital for Women. A branch dispensary of this latter hospital was opened at Lahore in 1889. At the Maternity Hospital, Amritsar, which is in the charge of a lady superintendent, midwives are trained, who attend patients in their own homes. In addition to the 208 hospitals and dispensaries in the Punjab, there are six leper asylums.

INCOME AND EXPENDITURE,

Table showing the Income and Expenditure of the Hospitals and Dispensaries of the Punjab for the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government	27,865	On establishment	2,35,678
„ local funds „	3,87,008	„ medicines, &c.	94,395
„ interest on investments	5,525	„ diet of patients	32,718
„ subscriptions from		„ miscellaneous charges	43,445
Europeans	16,850	„ building and repairs ...	35,144
„ subscriptions from			
natives	6,894		
Total	4,44,142	Total	4,41,380

THE NORTH-WESTERN PROVINCES AND OUDH.

The North-Western Provinces and Oudh seem to be passing through a cycle of building activity, the want of adequate medical aid having been fully realised and acted upon. The number of patients attending the hospitals and dispensaries has increased 51 per cent.

since 1884, and in the case of women the increase has been 57 per cent. In 1889, eighteen new hospitals and dispensaries were opened, and, besides the works actually completed, the erection of many other new buildings and the extension of existing institutions is sanctioned, or on the point of being so. Perhaps the most prominent feature in this development of medical aid in the North-Western Provinces is the increase in the number of female hospitals and dispensaries. These hospitals for women are the result of the movement commenced by Lady Dufferin. They are so important a part of the hospital system of the North-Western Provinces that a separate account of them will be given later.

The canal dispensaries, the temporary dispensaries, the leper asylums, and the distribution of cholera and fever medicines through the agency of the police, are all features worthy of mention. The canal dispensaries are establishments attached to gangs of workers engaged on the canals. These institutions numbered eleven in 1889, and are under the management of hospital assistants, who treated 9,569 patients during the year, at a trifling cost for medicines. The temporary dispensaries are opened at fairs and festivals which attract the multitude from all parts of the country, and are placed under the charge of hospital assistants. Fifteen dispensaries were opened in 1889. The distribution of cholera and fever medicines is made through the police, as well as through the vaccination staff; but of such distribution no detailed accounts are kept. The leper asylums may justly be regarded as part of the hospital system of India, as the Government largely extends aid to those suffering from this terrible affliction. In 1889, 751 lepers were housed, clothed, and fed in the North-Western Provinces. The average cost per leper per annum throughout the Provinces is Rs. 45. The principal leper asylums are at Dehra Dún, Almora, and Agra. The leper asylum at Almora is entirely supported by private funds. The total income of these institutions amounts to Rs. 66,416. In spite of the large increase in sick accommodation of late years in these Provinces, overcrowding still exists in many parts. For instance, at the Agra hospital, with eighty-six beds, the daily average number under treatment in 1889 was 102; and at Moradabad the figures were thirty beds to forty patients; at Meerut, thirty-four beds to forty patients; and at Allahabad, forty-four beds to fifty-six patients respectively. At the Ghazipur Home, patients slept on the verandah, the in-patients averaging forty-one to twenty-two beds provided. As a general rule, the extent to which beds are occupied in institutions may be taken as

the measure of their popularity. This view is, however, deceptive in the case of many branch dispensaries, where patients are encouraged to become in-patients without due regard to the absolute necessities of each case. With a view of putting a stop to this reckless mode of admission to dispensary beds, the Inspector-General of Civil Hospitals, Dr. Rice, recommends that in future outdoor relief only shall be provided at branch dispensaries, and that the more serious cases shall be transferred to the hospitals.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of the North-Western Provinces and Oudh for the Year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government ...	2,05,649	On establishment ...	2,86,953
„ registers and forms...	2,261	„ bazaar medicines ...	17,551
„ municipal funds ...	41,493	„ European medicines ...	62,420
„ district boards ...	39,816	„ diet ...	34,387
„ other local sources ...	50,850	„ miscellaneous charges	56,879
„ subscriptions from		„ building and repairs ...	22,427
Europeans ...	9,723	Transferred to district	
„ subscriptions from		board funds ...	443
natives ...	55,655		
„ diet of police cases ...	2,210		
„ sale of medicines ...	42,488		
„ interest on invest-			
ments ...	34,778		
Total ...	4,84,923	Total ...	4,81,060

SUMMARY OF PATIENTS AND NATIONALITIES.

The various classes of patients treated in the hospitals in 1889 were :—Europeans, 887 ; East Indians, 5,698 ; Hindus, 1,660,687 ; Mussulmans, 889,592 ; other classes, 83,229.

FEMALE HOSPITALS AND DISPENSARIES.

The advantages ensuing from the institution of female hospitals and dispensaries have been especially realised in the North-Western Provinces and Oudh, and of the eighteen new institutions opened in this part of India in 1889, ten were female establishments.

Although the hospitals for females are still too few to produce a striking difference in the general mass of hospital statistics, still the results have more than realised the expectations formed at the commencement of the movement. A most important work is being done in the training of competent midwives, and at the Lady Lyall Hospital for Women at Agra clinical instruction is given to forty or more women-students studying for the diploma of hospital assistant. A lying-in hospital consisting of three blocks, for Hindus, Mahomedans, and Christians, is in process of construction, and when finished will place this hospital as a school for female students in the first rank. At present the majority of the surgical operations are performed by civil or assistant surgeons. The following table shows the number of female establishments in these Provinces and the number of patients treated in them in 1889 :—

Table showing the Number of Patients treated in 1889 at the Female Hospitals and Dispensaries of the North-Western Provinces and Oudh.

						In-Patients.	Out-Patients.
Agra, Lady Lyall Hospital	...	...	...	...	...	676	13,296
" Female Dispensary	...	...	...	...	...	...	6,900
Allahabad " "	...	...	...	...	...	296	8,850
Bahraich " "	...	...	...	...	...	54	17,005
Bareilly " "	...	...	...	...	...	624	19,898
Bijnor " "	...	...	...	...	...	8	4,412
Budaun " "	...	...	...	...	...	95	5,140
Ghāzipur " "	...	...	...	...	...	330	3,842
Lucknow " "	...	...	...	...	...	364	8,930
" " " (joined to Balrāmpur Hospital)	...	...	...	...	...	412	11,596
Meerut " "	...	...	...	...	...	...	3,969
Naini-Tal " "	...	...	...	...	...	51	1,011
Total						2,910	104,849

HYDERABAD.

Although a great part of the Province is unsupplied with medical aid, the proportion of dispensaries compared to population is more favourable here than in many other parts of India. The number of dispensaries in Hyderabad in 1889 was forty-four, which gives one dispensary to every 60,742 of the population. In Bombay, the proportion of dispensaries is one to every 89,700 of the population. Only one new dispensary was opened in 1889, showing that

Hyderabad was behindhand in building activity in that year. Nevertheless, a considerable amount of additions and improvements were made in existing institutions. Thus, two new wards were added in two establishments, and several wards were enlarged. New dispensaries are in process of construction, and others have been commenced. The total number of beds available in the whole of Hyderabad was only 268 in 1889. There were 2,773 in-patients treated during that year, an increase of 390 over 1888. Notwithstanding this increase in the number of in-patients, the daily average number of beds occupied was very much below the available number provided. This shows that there is still much prejudice to be overcome in the matter of indoor relief. The out-patients numbered 270,439 in 1889, an increase of 16,023 on the previous year. Dispensaries in Hyderabad seem to suffer from the tendency of the people to regard them as State institutions, and as, therefore, little dependent on voluntary aid. Of the forty-four medical institutions in the Province, thirty-five are mainly and eight entirely supported by the State. Only one is entirely dependent on a municipality. It is intended that ultimately local authorities shall bear the sole charge of the medical establishments, but much progress towards this end has not as yet been made in Hyderabad. The Government is always ready to further the extension of medical aid, provided a suitable locality is indicated for the erection of a new institution, and that a small annual subscription from the district is guaranteed. Nevertheless, the smallness of private contributions presents great difficulties, and official influence is frequently found necessary to induce the people to subscribe. Amongst the better classes greater liberality has been shown. Thus, twelve native gentlemen contributed a total sum of Rs.1,080 towards the erection of new dispensaries in 1889, and Mr. Jehangir Hormosji offered to defray the entire cost of a hospital building at Badnera. Several other natives have presented the sites for new dispensary buildings.

NATIONALITIES.

The proportion of races attending the medical institutions varies very little from year to year. In 1889 the distribution was as follows :—Europeans, 737 ; Eurasians, 1,860 ; Hindus, 162,780 ; Mussulmans, 96,248 ; and other classes, 11,587.

INSPECTION.

The civil surgeons are directed to inspect the medical institutions of Hyderabad quarterly, and to call committee meetings on the occasion of their visits. The dispensary committees are also expected to meet once a month. This rule is not generally regarded, and complaints are made of the negligence and want of interest displayed by the members.

INCOME AND EXPENDITURE.

Table showing the Income and Expenditure of the Hospitals and Dispensaries of Hyderabad for the year 1889.

INCOME.		EXPENDITURE.	
	Rs.		Rs.
From Government	71,652	On establishment	73,171
" European medicines	8,068	" bazaar medicines ...	1,442
" local funds	12,986	" European medicines ...	8,076
" municipal funds ...	5,353	" diet	881
" interest on invest- ments	2,373	" miscellaneous charges	8,843
" European subscrip- tions	114	" building and repairs ...	8,432
" native subscriptions	6,356		
Total	1,06,902	Total	1,00,845

The balance at the beginning of the year, invested and floating, was Rs. 74,157. The balance at the end of the year, invested and floating, was Rs. 80,215. The increase of income on the previous year amounted to Rs. 218. The principal increase in subscriptions was from local funds, whilst the most marked decrease was in the case of native subscriptions. This last is accounted for by the fact that in 1888 special collections were made by the officials for building purposes.





CHAPTER XVI.

THE BRITISH COLONIES.

WHEN treating of the condition of the lunatic asylums in the various colonies of the British Empire, we referred to an extremely interesting Minute describing the condition of hospitals and asylums in 1864. In a prefatory letter attached to this Minute the author remarks that in this country the greater number of hospitals owe their existence to the bounty and philanthropy of private persons, and that the beneficent spirit in which they originated has attended them continually, inducing, by the efforts and care of those who took an interest in them, progressive improvement of structure, arrangements, management, and supervision; whereas in the colonies institutions of this nature have been almost universally founded and supported out of public funds, and are dependent for their well-being on the executive and legislative authorities.

After careful consideration of a very large amount of evidence, the writer deliberately passes sentence upon these institutions in the following terms: ". . . Generally speaking, the state of these institutions in the colonies, though not, perhaps, worse than in England at a former period, is yet widely and deplorably different from what would be now considered in this country to be consistent with the humane objects they are designed to promote; whilst in some cases, though not, I trust, in very many, the state of colonial hospitals or lunatic asylums would seem to be such as can hardly be deemed to be consistent with humanity itself. I am persuaded that the state of these institutions is in general to be attributed less to any wilful and deliberate neglect on the part of the legislative and executive authorities, than to a want of adequate know-

ledge of what such institutions ought to be and of the methods by which improvements are to be brought about, and in the case of some of the smaller colonies, no doubt, it may be ascribed to a want of adequate funds and resources."

As might be expected, the worst of the evils existing at the time this sentence was written were due to unsuitable structures and defective arrangements for sanitation. In many cases these deficiencies have been supplied, and consequently the strictures are no longer justified.

A second fertile cause of dissatisfaction was the lack of proper provision for superintendence of the institutions. At that period there was seldom any provision for inspection by persons not connected with the hospitals, except for the discretionary visitations of the governors, which were far from frequent. Reports, or lists of admissions, discharges, and deaths, were sent annually or semi-annually to the governors, and frequently to the boards of management, which themselves published annual statements; but there was nowhere any provision for that kind of report which is of more value than any other—reports, that is, of the actual working of every part of an institution, made frequently to superior authorities otherwise unconnected with the management.

It will be readily understood that, in attempting to give an account of hospitals throughout the world, an immense amount of labour is required, first of all to collect bare facts, and then to put them in presentable dress for publication; but few people would realise the difficulty to be experienced in getting any account at all of these institutions as they are, not because the reports and accounts have never been written and do not exist, but because no one has hitherto seemed to know where to look for them. In the case of Belgium and certain other Continental countries, the Minister of the Interior is supposed to be in touch with all the charitable institutions under his jurisdiction; and to a great extent he actually is so, each hospital having to furnish a report of its operations to its local authority, from whom it is gradually handed on until it arrives at the head quarters of the central Government. This rule holds good of charities which are practically autonomous, the Government insisting on being kept informed of the progress of each one, although it may never interfere with its direction. But in the case of the British colonies the same system does not obtain. Theoretically, the Agents-General for the colonies which have constitutional government of their own, and the Crown Agents for the

smaller colonies falling under that department, are the representatives of the central Government, and are supposed to be kept up to date with the history of the charitable institutions in the various localities. But practically this is only true to a small extent. In the case of the West Indian hospitals particularly, very few precise details have been obtainable. The islands themselves, together with their populations and revenues, are small, and no doubt much of what was bad in their hospitals was due originally to their poverty: it was poverty which suggested the mistaken economy which accepted the first site and building that offered as sufficient for the wants of a limited number of applicants, and to minuteness of scale is chiefly to be traced their general want of system and their ineffective management in the past. Is it not also a mistaken economy which is content with the barest reports of only movement of population in hospitals in remote colonies in which only a limited number of people are supposed to be interested?

We have no doubt that it is upon the assumption that nobody cares, that these reports are buried away as they are; but the process we object to as mistaken, and the assumption it is based on we deny. It was precisely the same argument that made the hospitals so bad twenty-five years ago, and too strong a protest cannot be entered against it. If it were to be admitted for a moment, the inspections by Government officials would become perfunctory, half-hearted, and almost useless, and perhaps in time as "discretionary" as they used to be. But the moral is a two-edged one, cutting both ways; and we must admit that, if people at home displayed more interest in the doings of their countrymen abroad, they would most probably learn a good deal more about them at first-hand. Meanwhile, to gather the crop of information set forth in the following pages we have had to traverse a wide field. Hospital statistics are so commingled with the whole vital statistics of some colonies, instead of being kept apart, as they should be; hospital systems are so confused with general systems of charity, or, more frequently, unmethodical, indiscriminate almsgiving; and finally, hospital work is so often merged in poor law operations, that it has in many cases been impossible to give any clear account of these institutions by themselves. Whatever facts we have learnt are fully set forth in this chapter. We have maintained the Colonial Office classification of the colonies, dividing them into four groups:—(1) West Indian; (2) North American; (3) Mediterranean and African; and (4) Australasian and Eastern.

With regard to the general scheme of colonial hospitals, it may be observed that in the West Indian division these institutions are nearly all Government establishments, falling under the Surgeon-General's department, and almost entirely maintained at the Government expense. A very inconsiderable portion of the revenue comes from paying patients, and in the case of seamen and indentured immigrants, or labourers on the plantations, the cost of maintenance is defrayed by the ships' captains and employers. In some of the colonies there are regular estates' hospitals, where a capitation fee is paid by the employer for every labourer on his estate, the fees being recoverable at law by virtue of various Labour Acts in force in the respective localities. All the rest of the expenditure is defrayed from the Government chest, after having been passed by the board of management, and in some instances by the governor himself.

In the North American division the hospitals are usually provincial or city institutions, maintained partly by local taxation and patients' payments, and partly by Government subsidies. In Canada the hospitals belong to a recognised department of prisons and public charities, and in all cases in this division the arrangements for supervision and inspection are good.

In the Mediterranean and African division there is a very varying degree of merit in the hospitals. These are colonies under the Crown Agents, small in some cases, and in all supplying little information on our subject. The Gibraltar hospital appears to be exceptionally well managed, and is vastly improved by the substitution of a general fund for the old arrangement by which the different religious bodies maintained patients of their several persuasions. Malta is on a different footing to the other colonies in this division.

In the Australasian and Eastern division the general arrangements for the hospitals are better than anywhere else in the colonies. The reports furnished by the inspectors-general are complete and terse, and were it not for the fact that the poor law encroaches so much upon the hospital system, things might be said to be in a very satisfactory state. The hospitals are far more like the voluntary institutions of this country, than are those of other colonies, receiving a considerable part of their income from private contributions, and being managed very largely by private hands. At the same time, they are liberally subsidised by the Governments, and in some cases they are wholly maintained by Government.

A fairly complete account of these hospitals will be found in its proper place.

Private institutions maintained wholly by private subscriptions or deriving a sufficient income from endowments, are practically never found in the colonies. The pauper hospital, Tan Tock Seng's, at Singapore, is endowed, and there may be others; but they are exceptions, and even the Singapore pauper hospital derives an annual grant from the colonial treasury. Speaking generally, therefore, we may say that the colonial hospitals are State institutions wholly maintained or largely subsidised by the Government, and for purposes of administration belonging to the Surgeon-General's department, or to a recognised Government department of charitable institutions.

Practically, therefore, those British colonies which are under the immediate supervision of the Crown Agents have, so far as the Eastern, West Indian, and West African groups are concerned, the same form of administration for their hospitals. These hospitals are absolutely under the Government, and are supported mainly or entirely out of Government funds. Of course, they differ in this respect very materially from the larger colonies, which have a considerably greater population, as there a goodly number of hospitals have been established on the voluntary system, and are mainly or entirely supported by subscriptions and donations as in the old country. Even in the Crown colonies, it sometimes happens that subscriptions are given to the hospitals, though this proceeding is rare, and will only be found to prevail in a very few exceptional cases. Formerly, as was the case originally in England to a great extent, especially in relation to the county hospitals and at Guy's Hospital, London, a portion of the buildings was devoted to the reception of lunatics. This practice has gradually been given up, and no doubt before long each colony will treat its lunatics in a separate institution.

In some of the smaller colonies, as in Trinidad, owing to the absence of a poor law system the hospital so called has to receive the chronic and aged, the lepers, and almost every case which can under any pretext be classed as invalid. These arrangements are, of course, most unsatisfactory, and it is to be hoped that, seeing that the institutions are under the control of the Government, steps will be taken forthwith to provide suitable accommodation to meet the requirements of every class of case, and to see that they are provided for under conditions which will secure proper isolation

as well as adequate treatment, having regard to the nature of each case to be dealt with.

It will be found in the following pages that the information is not as complete as we would desire, but it represents the whole of the available facts which close research and careful inquiry have brought to light. Although much greater interest is taken in the hospitals of the smaller colonies than there used to be, there is still room for improvement in this respect, and no doubt when a proper public spirit is awakened in the colonies themselves, much more adequate arrangements will be made and much fuller information will be forthcoming.

I. WEST INDIAN DIVISION.

I. BRITISH GUIANA.

PUBLIC HOSPITALS.

From the report of the Surgeon-General dated September 27, 1890, we learn that the total number of persons treated as in-patients in the public hospitals of the colony was 10,692, of whom

Table showing the Movement of Population in the Five Public Hospitals of British Guiana during 1889.

HOSPITALS.	No. of Inmates remaining on Jan. 1, 1889.			Admitted during 1889.			Discharged during 1889.			Died in 1889.			Remaining on Dec. 31, 1889.			Daily Average No. under Treatment.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Georgetown	406	201	607	4,291	2,432	6,723	3,640	2,124	5,764	586	346	932	471	163	634	449	196	645
Seamen's	14	..	14	366	..	366	359	..	359	3	..	3	18	..	18	10	..	10
Berbice	75	32	107	1,234	691	1,925	1,096	638	1,714	154	44	198	79	41	120	82	34	116
Suddie	30	12	42	536	250	786	471	222	693	67	23	90	28	17	45	32	15	47
Massaruni	1	..	1	121	..	121	105	..	105	15	..	15	2	..	2	3	..	3
Totals	526	245	771	6,548	3,373	9,921	5,651	2,984	8,635	825	413	1,238	598	221	819	576	245	821

7,074 were males and 3,618 females—a number somewhat less than the corresponding total in the previous year, when it was 11,451. In 1889, as compared with 1888, there was a slight increase in the

number admitted as in-patients at the public hospital at Georgetown, and a very marked increase at the Massaruni institution ; but, on the other hand, the in-patients treated in the hospitals at New Amsterdam and Suddie were less numerous. Of the 10,692 patients treated in 1889, 8,635 were discharged during the year, 1,238 died, and 819 remained in the hospitals at the end of the year. The preceding table shows the movement of population in the five public hospitals.

The number of deaths was less than in the year 1888. The percentage of mortality on cases treated to a termination in all the hospitals was for males 12·7, females 12·1, general 12·5—a rate almost identical with that of 1888, when it was 12·6 per cent. The percentage of mortality in the different institutions is shown in the accompanying table :—

Table showing Percentage of Mortality on Cases treated to a Termination in the Hospitals of British Guiana in 1889.

HOSPITALS.	Percentage.		
	M.	F.	T.
Georgetown	13·4	13·0	13·3
Seamen's	·8	...	·8
Berbice	12·5	6·4	10·3
Suddie	12·4	9·3	11·4
Massaruni	8·0	...	8·0
General percentage ...	12·7	12·1	12·5

In considering the rate of mortality in these institutions, attention is due to the fact that a very large number of moribund cases are admitted. Thus, of 935 deaths occurring at the Georgetown Hospital, 106 took place within twenty-four hours, and twenty-seven within forty-eight hours of admission. At Berbice, again, of the total number of 198 deaths, forty males and ten females died within forty-eight hours of admission, a little less than a quarter of all the deaths ; and if these be deducted, and the percentage then calculated, the death-rate will be found to be 7·9 per cent. instead of 10·3. Why there should be this delay in applying for admission does not appear, but the reason why friends bring in patients, even when actually dying, is that the funeral expenses are borne by the colony, and other troubles may also be avoided if the dying persons are seen by a medical man.

ACCOMMODATION.

Although there was no diminution in the extent of the relief afforded to the suffering poor of the colony in its public hospitals during 1889, yet throughout the year there was a constant pressure on the available accommodation, and at each hospital admission had frequently to be refused to applicants likely to derive benefit from treatment, simply from want of room. The poorer classes consider that they are entitled to hospital care and treatment at the public expense as a matter of right, and so long as they do this every available bed is likely to be continually occupied. The medical officers are obliged to exercise discrimination, and select from among the applicants those who seem most dangerously ill or most likely to derive benefit from hospital treatment, thus unavoidably rejecting some proper cases. The Suddie hospital is quite unable to receive all the applicants for admission there, and yet it is improbable that any moderate addition would enable it to meet all the demands on its space. The Surgeon-General is of opinion that any extensive enlargement should form part of a general scheme for providing public hospitals throughout the colony, if at any time it is thought necessary or advisable that such provision should be made.

The buildings at Massaruni are wholly inadequate for their purpose, the provision for male patients being insufficient, while there is absolutely no accommodation for females. In once more drawing attention to this point, the present acting resident surgeon adds: "The steady and rapid increase of the population in this district, owing to the development of the gold and other industries, puts a great strain on the resources of the hospital, which is frequently overcrowded; while at times, from want of *even floor-space*, patients have to be turned away who really ought to be admitted. With regard to a female wing, since at present there is no accommodation for either women or children, the necessity for it is obvious. A few beds only would be required, but these few are urgently needed." In this connection the Surgeon-General says: "It has not hitherto been thought judicious to recommend any large expenditure for additional building on what is undoubtedly an inconvenient and unsuitable site for a public hospital. The question of the removal of the hospital, which naturally arose, was left over for decision until some indication was obtained showing what was likely to be the most central situation for the population of the districts bordering

on the various rivers which coalesce in the Essequibo. It would seem that Bartica has now become the centre of the district, both for the wood-cutters and the gold-miners, and therefore the removal of the hospital from Massaruni to Bartica should be carried out. At the same time, the amount of accommodation, which is now very insufficient, might be increased to twenty beds for males and ten for females."

EXPENDITURE AND COST.

The expenditure on account of the public hospitals for the financial year 1889-90 was \$112,249 for all charges except maintenance of buildings and medical attendance. Deducting a revenue of \$4,282 obtained from various sources, the net cost to the colony of these institutions in 1889-90 was \$107,967, an increase of \$4,465 on the year 1888. The increase is divided over the different institutions, except the small hospital at Massaruni, where the expenditure was somewhat less than in the previous year. Appended are some details:—

Table showing the Expenditure of the Five Public Hospitals of British Guiana for the financial year 1889-90.

HOSPITALS.	Wages and Salaries.	Maintenance.	Total.	Credit.	Net Cost.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Georgetown ...	23,297.78	58,586.28	81,884.06	3,586.26	78,297.80
Seamen's ...	...	2,206.88	2,206.88	...	2,206.88
Berbice ...	6,681.70	12,491.88	19,173.58	599.48	18,574.10
Suddie ...	1,895.76	5,999.48	7,895.24	96.39	7,798.85
Massaruni ...	480.00	609.46	1,089.46	...	1,089.46
Total ...	32,355.24	79,893.98	112,249.22	4,282.13	107,967.09

Table showing the Daily Cost of each Patient in Hospital, inclusive of Expenditure on Out-Patients, but exclusive of Medical Attendance.

Hospital	Daily Cost.
Georgetown and Seamen's ...	... 32 cents.
Berbice ...	... 39 "
Suddie ...	... 44 "
Massaruni ...	... 99 "

ABSENCE OF FEVER HOSPITALS.

It is strange that at present there are absolutely no means of isolating cases of contagious disease which may occur in the colony. There is no place where small-pox, cholera, yellow fever, or cases of that kind can be received, as admission of such into the general hospitals is impracticable, and it is impossible to extemporise hospital accommodation in sudden emergency. As a matter of fact, during 1889 there were no cases of yellow fever, but this is a unique experience since the epidemic of 1881; and, moreover, the existence of typhoid or enteric fever in the colony was proved to demonstration. With regard to small-pox, vaccination is practically not carried out, and quarantine of suspected vessels forms the only protection against the importation of this deadly scourge.

ESTATES' HOSPITALS.

At the end of 1889 there were ninety-three estates' hospitals in British Guiana, as against ninety-six on the previous 1st of January, while one new one was in course of erection and several others were enlarged and repaired. The number of in-patients was 75,725, an increase of 1,729 on the previous year. Of these, 43,851 were indentured immigrants, 29,366 were unindentured immigrants, and 2,508 were non-immigrants. There were 34,902 out-patients. The mortality percentage of inmates of the estates' hospitals on cases treated was .5 for indentured immigrants, .29 for unindentured, and .56 for non-immigrants. The difference in the mortality rate of the estates' and the public hospitals is mainly due to the fact that the more serious cases are always sent to the latter institutions, even when moribund. The facts given in this paragraph are appended in a tabular form for readier reference:—

General Statistics of the Estates' Hospitals of British Guiana for the year 1889.

—	Indentured Immigrants.	Unindentured Immigrants.	Others.	Total.
In-patients treated	43,851	29,366	2,508	75,725
In-patients died	218	874	141	1,233
Percentage of in-patients who died ... ..	.5	.29	.56	1.6
Out-patients treated	10,703	20,205	3,994	34,902
Out-patients died	1	29	48	78

MANAGEMENT.

Formerly the management of the hospitals of this colony varied for the different institutions, that at Berbice being vested in a board of directors under the Church and Poor Ordinance, and that at Essequibo in a medical superintendent subject to the medical officer to the Immigration Department. Under the authority of Ordinance 6 of 1885, however, the Governor and Court of Policy issued regulations for all the public hospitals of British Guiana, without regard to any previous arrangements. These new regulations provide that all the hospitals shall be under the control and direction of the Surgeon-General, who has to report from time to time to the Governor on their state and condition, besides presenting an annual report to the Governor and Court of Policy.

2. JAMAICA.

THE PUBLIC HOSPITAL.

The following table shows the movement of population in the public hospital, Jamaica, for the year ended September 30, 1889 :—

—	Males.	Females.	Total.
Remaining on October 1, 1888 ...	131	80	
Admitted during year	1,337	782	
Total patients treated ...	1,468	862	2,330
Cured	910	506	
Relieved	261	151	
Not relieved	45	45	
Died	140	89	
Remaining on September 30, 1889	112	71	
Total patients treated ...	1,468	862	2,330

The average stay, in days, of patients discharged was 35·59 for males and 38·87 for females, while of patients who died the average stay was 23·45 and 25·26 respectively. The total of 229 deaths out of 2,330 cases treated gives a rate of mortality of 9·82 per

cent. Nearly one-third of the deaths occurred within seventy-two hours after admission, and deducting these incurable cases from the total mortality, a death-rate of 6 per cent. appears, which is decidedly creditable for such an institution.

Finance.

Table showing the Total Expenditure of the Public Hospital, Jamaica, for the year ending September 30, 1889.

	£	s.	d.
Salaries	2,005	0	0
Wages	1,821	9	3½
Maintenance	2,500	0	0¾
Medical, Surgical Appliances, and Medicine ...	756	6	4¾
Fuel, Light, &c.	217	11	0
Funeral Expenses	212	14	0
General Equipment	475	15	11
Washing... ..	336	11	1½
Water rates	90	0	0
Incidental	36	18	3½
Furniture	104	19	6
Gross expenditure	8,557	5	7
Dues collected and paid over to Public Money's Account	309	15	5
Cost of Medicines for Outdoor Poor	248	5	6
		558	0 11
Net expenditure	7,999	4	8

Table showing the Cost of each Patient, after deducting the several Amounts passed to the Credit of the Hospital as shown in preceding Table.

Years.		Daily Number of Beds.	Gross Expenditure for the Year ending September 30.	Amount of Dues paid into Treasury.	Cost of Medicine for Outdoor Poor of Kingston.	Actual Expenditure, after deducting Amounts passed to Credit of Hospital.	Annual Cost of each Patient.	Daily Cost of each Patient.	Number of Patients Treated.	Average Cost per Ann. of each Patient treated, after deducting Amounts passed to Credit of Hospital.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	s. d.		£ s. d.
1887	205	8,011 1 5	220 8 6	499 10 0	7,291 2 11	35 11 4	1 11½	2,482	2 18 9	
1888	208	8,528 12 4	257 9 8	650 3 6	7,620 19 2	36 12 9½	2 0	2,074	3 13 6	
1889	201	8,557 5 7	309 15 5	248 5 6	7,999 4 8	39 15 11	2 2½	2,330	3 8 8	

From the foregoing tables it appears that the actual cost for a daily average of 201 patients was £7,999. This amount is arrived at by deducting from the gross expenditure the total of dues paid

into the Treasury, viz. £309 15s. 5*d.*, as well as £248 5s. 6*d.*, the value of medicines supplied to the out-patient department. The annual and daily cost of each patient was £39 15s. 11*d.* and 2s. 2½*d.* respectively. The average annual cost of each inmate, after deducting the amounts passed to the credit of the hospital, was £3 8s. 8*d.* Although the total number of patients treated in 1889 was larger by 256 than the number treated in 1888, yet the daily average was only 201, as compared with 208.

OTHER INSTITUTIONS.

In addition to the public hospital of which we have just given some details, there are in existence twenty-four other hospitals and dispensaries, of which we have, unfortunately, been able to obtain no particulars. They are as follow:—District of St. Thomas—Albion coolie hospital, Morant Bay and Hordley public general hospitals; Portland District—Port Antonio and Buff Bay public general hospitals, and Hope Bay Government dispensary; St. Mary's District—Annotto Bay and Port Maria public general hospitals; St. Ann's District—St. Ann's Bay public general hospital; Tre-lawny District—Falmouth public general hospital, and Clark's Town Government dispensary; St. James's District—Montego Bay public general hospital; Hanover District—Lucca public general hospital, and Green Island Government dispensary; Westmoreland District—Sav-la-Mar public general hospital; St. Elizabeth District—Black River public general hospital; Manchester District—Mandeville public general hospital; Clarendon District—Chapleton, Lionel Town, and Dry River public general hospitals; St. Catherine District—Spanish Town and Linstead public general hospitals, and Spanish Town district prison, county jail, and hospital.

3. BARBADOS.

The daily average number of patients in the Barbados hospital during 1889 was 213, as against 221·73 in 1888. The number of patients admitted was 2,316; out-patients numbered 7,778, as against 6,566 in the previous year. The total revenue was £6,525 18s. 9½*d.*, made up of the yearly grant of £6,000 and the balance from 1888; while the expenses amounted to £5,903 3s. 1*d.*, as against £5,831 16s. 5*d.* Of the total expenditure, £708 9s. 11*d.* was devoted to building purposes.

4. TRINIDAD.

Trinidad possesses two colonial hospitals, situated at Port of Spain and San Fernando, and six district hospitals, situated at St. Joseph, Tacarigua, Arima, Chaguanas, Couva, and Princetown.

(i.) COLONIAL HOSPITALS.

The colonial hospital, Port of Spain, has accommodation for 625 patients, but the overcrowding has long been excessive, owing largely to the want of a proper system of poor relief in the colony and other suitable provision for cases not in themselves suitable for hospital treatment, but which, having once been received, cannot afterwards be discharged. According to the report of the resident surgeon, this institution is a refuge for vagrants, and may without exaggeration be said to serve seven distinct purposes. Thus, it is a hospital proper for the deserving poor and a few pay-patients; a soup-kitchen or "daily-meal institution" for the town beggars, and will be so until the Government builds a workhouse; an asylum for the aged, crippled, and incurably sick; an out-patient department for the leper asylum, where no overcrowding is allowed; a maternity hospital; a hospital for the purposes of the immigration coolies after the arrival of the ships; and occasionally a hospital for contagious and infectious diseases.

Nominally, the Health Office is the portal for admission to the hospital, but, as a matter of fact, 41 per cent. of the patients were admitted directly in 1889, being in immediate need of hospital treatment. The resident surgeon admits that this practice of ignoring the Health Office is the chief cause of the overpressure in the hospital, and says that if the Health Office were made absolutely the only portal of admission, and certificates were not given away so readily, the poor would seek medical advice early in their sickness, and the question of admission would not arise so frequently. This Health Office is practically the out-patient department of the hospital, but is some distance from it. If it were brought into the hospital grounds the present objection to applying there for certificates of admission would be done away with, for no doubt in many cases applicants find it necessary to apply direct to the hospital, and save time on which their lives may depend. As it is, 89 patients out of 655 died within forty-eight hours of admission.

During the year 7,111 patients were treated, of whom 655 died, giving a mortality rate of 9·21 per cent., which under all the circumstances must be considered low.

At the San Fernando colonial hospital the overpressure is also excessive; 3,343 patients were treated, with a mortality rate of 9·54 per cent. The daily average of in-patients was 232. A new female ward for fifty beds is to be built shortly; and by way of further relieving the pressure on the existing hospital accommodation, it is proposed to build two new district hospitals for twenty and thirty beds respectively.

(ii.) DISTRICT HOSPITALS.

These institutions are designed to bring hospital treatment within reach of the sick poor of their respective neighbourhoods. They are usually filled to the limit of their accommodation, but only one, that at Couva, is reported to have been overcrowded during 1889. There is a general report of the low condition of patients on admission, which swells the mortality rate, and also of many deaths occurring soon after admission.

All the medical institutions of the colony send in annual reports to the Surgeon-General, who submits them, through the Colonial Secretary, to the Governor.

The following is a summary of the work done in the colonial and district hospitals in 1889:—

Table showing the Movement of the Population in the Hospitals of Trinidad during the year 1889.

—	Remaining Dec. 31, 1888.	Admitted in 1889.	Discharged in 1889.	Died in 1889.	Remaining Dec. 31, 1889.
Colonial Hosp., Port of Spain	602	6,509	5,802	655	654
San Fernando Hospital ...	254	3,089	2,766	319	258
St. Joseph District Hospital...	24	504	425	71	32
Tacarigua " " ...	23	348	311	32	28
Arima " " ...	16	320	274	37	25
Chaguanas " " ...	21	429	390	44	16
Couva " " ...	36	892	835	52	41
Princetown " " ...	33	362	325	37	33

5. LEEWARD ISLANDS.

In the year 1888 there were in the whole colony of the Leeward Islands eight hospitals, with an aggregate number of 505 beds, as follows:—Antigua, 167 beds; Cunningham, St. Kitts, 144 beds; Sandy Point, St. Kitts, 18 beds; Infirmary, Nevis, 42 beds; Dominica, 32 beds; Yaws Hospital, Dominica, 50 beds; Montserrat, 28 beds; and Virgin Islands, 24 beds.

The amount of cubic space available for each patient in the various wards varies very much, being as great as 3,551 cubic feet in Edward's Ward of the Antigua hospital, and as low as 251 cubic feet in the Lazarus Ward of the same institution. To the Edward's Ward forty-eight beds are assigned, and seven to the Lazarus Ward, and the largest number of patients in each ward at any one time was forty-nine and nine respectively. It does not appear that any of the hospitals in the colony were overcrowded, but in the absence of any information beyond the tabular returns in the Blue Book we are unable to give precise details.

The following is a summary of the work done in these hospitals during 1888:—

Table showing the Movement of the Population in the Hospitals of the Leeward Islands during 1888.

	Antigua.	Cunning- ham, St. Kitts.	Sandy Point, St. Kitts.	Infir- mary, Nevis.	Do- minica.	Yaws Hos- pital, Do- minica.	Mont- serrat.	Virgin Islands.
Remaining Jan. 1, 1888 ...	135	147	10	51	28	50	10	10
Admitted in 1888 ...	904	692	76	110	247	99	75	15
Total treated ...	1,039	839	86	161	275	149	85	25
Dis- charged { Cured ...	432	371	43	45	159	99	43	8
{ Relieved ...	400	188	13	29	56	...	14	5
{ Not im- proved ...	...	26	2	1	12	...	5	...
Died ...	169	112	12	43	27	1	8	4
Remaining Dec. 31, 1888 ...	38	142	16	43	21	49	15	8
Daily average ...	106	149	13	67	28	51	13	9

Mention should be made of the average stay of the patients, which is so long as to point to the asylum or almshouse character of these hospitals. Thus, in the Virgin Islands the average stay of the patients who remained under treatment at the end of 1888 was 912 days for males and 732 days for females, while one inmate had then spent over twelve years in the institution. At the same place, the average stay of those who were discharged was 45 days for males and 365 for females, while of those who died the average stay was 90 and 180 days respectively. At the Infirmary, Nevis, one inmate had stayed for more than twenty-three years at the date of this Blue Book, and the average stay of the female patients who died that year was 412 days.

The water supply at all these institutions is reported to be unlimited in quantity and excellent in quality, derived from springs and rains. The sewerage is carried off by means of open drains and pipes, and the dry-earth system is in general use for the privies, which are regularly inspected and cleaned.

Frequent visits are paid to the hospitals by the Governor, Colonial Secretary, and the visiting justices and commissioners, and at such visits the register books are regularly produced.

II. NORTH AMERICAN DIVISION.

I. CANADA.

(i.) PROVINCE OF ONTARIO.

There are sixteen hospitals belonging to the department of prisons and charities, and receiving aid from the Province of Ontario. Of their total capacity we can gather no information, but the table on the next page shows the general movement of the population in each and all of these institutions during the official year ending September 30, 1888.

Table showing the Movement of Population in the Hospitals of Ontario in 1888.

HOSPITALS.	Remaining on Oct. 1, 1887.	Admitted during the Official Year ending Sept. 30, 1888.	Birhs in Hospital during Year.	Total Treated during Official Year ended Sept. 30, 1888.	Number Discharged during the Year.	Number of deaths during the Year.	Remaining Sept. 30, 1888.
General Hospital, Toronto (including the Burnside lying-in branch and the Andrew Mercer Eye and Ear Infirmary)	221	2,526	182	2,929	2,456	237	236
City Hospital, Hamilton	60	586	46	692	582	47	63
General Hospital, Kingston	36	467	37	540	468	27	45
Hôtel Dieu Hospital, Kingston	23	391	...	414	367	22	25
General Protestant Hospital, Ottawa	46	369	...	415	331	48	36
Roman Catholic Hospital, Ottawa	35	701	...	736	652	44	40
House of Mercy Lying-in Hospital, Ottawa	28	145	136	309	250	24	35
General Hospital, London	48	410	36	494	418	33	43
General and Marine Hospital, St. Catherine's	18	170	14	202	175	13	14
General Hospital, Guelph	20	359	14	393	336	20	37
St. Joseph's Hospital, Guelph	29	282	...	311	274	14	23
General Hospital, Pembroke	9	103	...	112	92	14	6
General Hospital, Mattawa	21	231	...	252	228	10	14
John H. Stratford Hosp., Brantford	35	239	5	279	234	15	30
St. Joseph's Hospital, Port Arthur	12	106	...	118	99	7	12
Belleville Hospital	14	82	...	96	75	7	14
Totals	655	7,167	470	8,292	7,037	582	673
Totals in 1887	576	6,515	431	7,522	6,356	515	651

Table showing the Collective Stay, in Days, of the Adult and Infant Patients, and the Average Length of Time of Treatment for each Patient, in the Hospitals of Ontario in 1888.

HOSPITALS.	No. of Patients, including Infants Born.	Collective Stay of Infants under One Year of Age.	Collective Stay of Adult Patients.	Total Collective Stay of Adults and Infants.	Average Stay of each Patient, including the Infants.
General Hospital, Toronto	2,929	2,359	78,448	80,807	28
City Hospital, Hamilton	692	761	23,532	24,293	35
General Hospital, Kingston	540	1,108	16,271	17,379	32
Hôtel Dieu Hospital, Kingston	414	...	10,281	10,281	25
General Protestant Hospital, Ottawa	415	..	17,554	17,554	42
Roman Catholic Hospital, Ottawa	736	...	19,208	19,208	27

Table showing the Collective Stay, in Days, of the Adult and Infant Patients, and the Average Length of Time of Treatment for each Patient, in the Hospitals of Ontario in 1888—continued.

HOSPITALS.	No of Patients, including Infants Born.	Collective Stay of Infants under One Year of Age.	Collective Stay of Adult Patients.	Total Collective Stay of Adults and Infants.	Average Stay of each Patient, including the Infants.
House of Mercy Lying-in Hospital, Ottawa ...	309	2,298	10,374	12,672	41
General Hospital, London ...	494	588	18,949	19,537	38
General and Marine Hospital, St. Catherine's ...	202	527	7,168	7,695	39
General Hospital, Guelph ...	393	252	10,764	11,016	28
St. Joseph's Hospital, Guelph ...	311	...	8,683	8,683	28
General Hospital, Pembroke ...	112	...	3,511	3,511	32
General Hospital, Mattawa ...	252	...	4,104	4,104	16
John H. Stratford Hospital, Brantford ...	279	54	8,379	8,433	30
St. Joseph's Hospital, Port Arthur ...	118	...	4,485	4,485	38
Belleville Hospital ...	96	...	4,588	4,588	47
Totals ...	8,292	7,947	246,269	254,216	30.65
Totals in 1887 ...	7,522	8,505	233,905	242,410	32.25

The two tables given above furnish all the particulars as to the movement of the population and duration of treatment. We now append some tabular information about the financial transactions of these hospitals.

Table relative to the Income of the Hospitals of Ontario in 1888.

HOSPITALS.	Amounts received from Municipalities, as a Grant, and for Patients' Maintenance.	Amount received from Patients for Board.	Amount received as Income from Property or Investments, belonging to Hospitals.	Subscriptions and Donations of Private Individuals, and Incidental Receipts.	Total Receipts from all Sources other than the Government Grant.	One-fourth of such Receipts.	Amount of the Ten Cents per Day Additional Grant.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
General Hosp., Toronto ..	16,599.80	15,989.41	15,905.85	4,069.10	49,564.16	12,391.04	7,539.60
City Hosp., Hamilton ..	10,580.64	955.05	...	11,535.69	2,883.92	2,104.20	1,382.60
General Hosp., Kingston	1,400	1,398.96	1,024.04	2,462.82	6,280.82	1,572.46	...
Hôtel Dieu Hospital, Kingston ..	144	462.60	79.51	810.55	1,496.66	374.16	890.30
General Protestant Hospital, Ottawa ..	1,625	1,542.81	45.87	4,857.28	8,070.96	2,017.74	1,424.40
Roman Catholic Hospital, Ottawa ..	1,000	3,275.17	120	2,750.87	7,146.04	1,786.51	1,873.20

Table relative to the Income of the Hospitals of Ontario in 1888—continued.

HOSPITALS.	Amounts received from Municipalities as a Grant, and for Patients' Maintenance.	Amount received from Patients for Board.	Amount received as Income from Property or Investments, belonging to Hospitals.	Subscriptions and Donations of Private Individuals, and Incidental Receipts.	Total Receipts from all Sources other than the Government Grant.	One-fourth of such Receipts.	Amount of the Ten Cents per Day Additional Grant.
House of Mercy Lying-in Hospital, Ottawa ..	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
General Hosp., London ..	..	912.28	53.50	4,761.29	5,727.07	1,431.77	516.80
General and Marine Hosp., St. Catherine's ..	6,564.90	2,377.83	454.47	..	9,397.20	2,349.30	1,561.80
General Hospital, Guelph	1,100	609.10	..	644.04	2,353.14	588.28	661.10
St. Joseph's Hosp., Guelph	2,000	1,880.50	..	266.70	4,147.20	1,036.80	997.80
General Hosp., Pembroke	900	920.16	300	489.65	2,609.81	652.46	817.90
General Hosp., Mattawa	340	542.23	..	1,055.93	1,938.16	484.54	351.10
John H. Stratford Hospital, Brantford ..	..	877.89	..	822.35	1,700.24	425.06	410.40
St. Joseph's Hospital, Port Arthur ..	2,500	1,653.73	..	58.05	4,211.78	1,052.94	753.60
Belleville Hospital ..	350	539	..	450	1,339	334.75	448.50
	502	793.50	..	2,649.64	3,915.14	978.79	324.40
Totals	45,606.34	34,700.22	14,987.24	26,148.27	121,442.07	30,360.52	22,057.70
Totals in 1887 ..	44,777.26	30,566.80	14,704.71	26,157.06	116,205.83	29,051.44	20,962.30

We showed just now that the collective stay of patients, exclusive of infants under one year of age, was 246,269 days. The full hospital allowance is not made upon all these days, as for the protracted residence of incurable and lying-in cases a refuge rate of seven cents only per diem is given. In 1888, the stay of these cases amounted to 25,692 days, and must be deducted from the whole number of treatment days, thus giving 220,577 as the collective days' stay upon which the statutory allowance of hospital rates was based. The fixed allowance of 20 cents a day thus produced \$44,115.40, and the refuge rate \$1,798.44; the supplementary allowance of one-fourth of the amount received from all sources other than the Government produced \$3,736.16, and the supplementary allowance of 10 cents a day realised \$17,366.70, thus making the total Government allowance for all hospitals \$67,016.70.

With regard to the cost of maintenance, the following table shows in detail the expenditure at all the hospitals for 1888, and summarily for 1887 for purposes of comparison, and also shows the average cost per patient per day :—

Table showing the Cost of Maintenance of the Hospitals of Ontario, and the Average Daily Cost per Patient, in 1888.

HOSPITALS.	Total Days' Stay, exclusive of Infants, under One Year of Age.	Cost of Dietaries.	Salaries, Fuel, Light, Medicines, Bedding, and all Expenditure on Maintenance Account.	Total Expenditure for Maintenance.	Average Cost of each Patient per Day.
		\$ c.	\$ c.	\$ c.	cents.
General Hospital, Toronto ...	78,448	23,361.25	41,812.20	65,173.45	84.35
City Hospital, Hamilton ...	23,532	5,253.12	10,878.50	16,131.62	68.65
General Hospital, Kingston ...	16,271	3,993.18	6,449.84	10,443.02	64.06
Hôtel Dieu Hospital, Kingston	10,281	3,036.99	2,092.10	5,129.09	49.98
General Protestant Hospital, Ottawa ...	17,554	2,890.66	6,432.82	9,323.48	53.11
Roman Catholic Hospital, Ottawa ...	19,208	4,603.40	4,886.36	9,489.76	49.40
General Hospital, London ...	18,949	5,102.16	9,964.30	15,066.46	59.51
House of Mercy Lying-in Hospital, Ottawa ...	10,374	2,364.83	2,213.60	4,578.43	23.84
General and Marine Hospital, St. Catherine's ...	7,168	1,518.08	3,455.65	4,973.73	69.38
General Hospital, Guelph ...	10,764	2,084.00	4,702.16	6,786.16	63.04
St. Joseph's Hospital, Guelph	8,683	1,966.99	2,246.51	4,213.50	48.52
General Hospital, Pembroke...	3,511	1,271.70	1,732.85	3,004.55	85.57
General Hospital, Mattawa ...	4,104	1,194.13	1,794.25	2,988.38	72.81
John H. Stratford Hospital, Brantford ...	8,379	1,590.85	4,127.89	5,718.74	68.25
St. Joseph's Hospital, Port Arthur ...	4,485	862.00	1,282.00	2,144.00	47.80
Belleville Hospital ...	4,558	893.14	2,523.55	3,416.69	74.96
Total ...	246,269	61,986.48	106,594.58	168,581.06	68.45
Total in 1887 ...	233,905	56,427.01	95,882.47	152,309.48	62.99

Toronto General Hospital.

In 1817 an Order was passed in Council to the effect that 399 acres of land in various parts of the old town of York should be given in trust to certain parties for the purposes of a general hospital. The sum of \$4,000 was also given by the Loyal and Patriotic Society—formed at the close of the War in 1812-14—this being the balance of their funds undisposed of. The first hospital was built in 1819, at a cost of \$3,000, but was left unused until 1824, when Government took possession of it, the Parliament buildings having been burned. It was opened for hospital work in August 1829.

In 1847, the Hospital Trust was incorporated, and in 1854 the present site of $6\frac{1}{2}$ acres was selected, and the central building of the present hospital erected, the style being partly modified Old English.

The capacity of the institution in 1891 was for 353 patients, the allotment of beds being as follows : general patients, 229 ; eye and ear cases, 39 ; special and infectious cases, 32 ; lying-in cases, 31 ; private wards, 11 ; and pavilion, 11. During the year ending September 30, 1891, the total number of patients under treatment was 3,385, of whom 235 remained from the previous official year, 2,994 were admitted, and 156 were born in the institution. The discharges numbered 2,891, deaths 263, and 231 remained in hospital on the 30th of September, 1891.

The hospital is governed by a board of five trustees, of whom three are appointed annually by the Ontario Government, one by subscribers of \$20 each annually, and the fifth is the mayor of the City of Toronto. There is a consulting staff of seven physicians and an acting staff of twelve physicians and surgeons, while four physicians are attached to the eye and ear infirmary, five to the Burnside lying-in hospital, and seven to the out-patients' department ; and there are, in addition to pathologists, a professor of laryngology and rhinology, an electrician and a dentist. There is a nurses' home with a capacity for fifty nurses, a nurses' training-school, and three medical schools, viz. the University of Toronto Medical School, the Trinity Medical School, and the Women's Medical School, all in direct connection with this institution. Of the history and progress of the other fifteen hospitals in this Province we have obtained no information.

(ii.) PROVINCE OF MANITOBA.

We have obtained hardly any precise information as to the hospitals in this Province, and can give no tabular statements as in the case of Ontario. There are, however, at least three institutions in Manitoba of which we can make some mention, viz. the General Hospital, Winnipeg, the Maternity Hospital, Winnipeg, and the General Hospital, St. Boniface.

The General Hospital, Winnipeg, is governed by a board of seventeen directors. The medical board is composed of four consulting physicians, six attending physicians, a resident house-surgeon, and a matron. Prior to 1884 this was merely a temporary

hospital, erected on a site at Point Douglas purchased from the Dominion Government ; but in that year the present hospital was completed, and the buildings are in every way satisfactory. Patients are admitted by order from the attending physicians, except in cases of emergency, when the house-surgeon can admit ; paying patients are received at a daily rate of \$2.50. The accommodation is for eighty patients, and the daily average number of beds occupied is about sixty. In 1890 the movement of in-patients was as follows :—remaining from previous year, 71 ; admitted, 911 ; total under treatment, 982. Of these, 829 were discharged, 82 died, and 71 remained at the end of the year. The general accounts showed receipts amounting to \$30,620.07, and expenditure amounting to \$30,716.29, of which \$25,716.29 was for maintenance.

At the Maternity Hospital, which is managed by three directresses, in-patients are admitted provisionally by the matron, pending the decision of the admitting committee, who institute inquiries and exercise their own judgment as to the merits of the several cases. All patients are required to pay something towards defraying the expenses of their stay in the institution, and, if unable to do so at the time, they are required to give a written promise to discharge their liability as soon as possible. The accommodation is for twenty patients. We have no details as to the recent work effected by this institution.

The General Hospital, St. Boniface, has only eighteen beds, of which fourteen are occupied on an average. It belongs to the Sisters of Charity, and is managed by a directress, patients being admitted at her discretion or upon the recommendation of known physicians. Patients able to pay are charged \$1 per diem in private rooms, and 75 cents in general wards. The income and expenditure vary between \$4,000 and \$5,000.

(iii.) NORTH-WEST TERRITORIES.

The Medicine Hat General Hospital in Assiniboia, which was opened a few years ago, cost \$19,743 for buildings, &c., and \$3,052 for the furnishing, making a total cost of \$22,795. There are 14 wards containing 35 beds, including 6 beds for maternity cases and a few beds for incurables. During 1890, 124 patients were admitted, 93 males and 31 females, of whom 10 died in the hospital. The hospital is controlled by a board of seventeen

directors, three of whom form the executive committee. It owes its establishment to the devoted efforts of Mr. J. Niblock, one of the superintendents of the Canadian Pacific Railway. It is probably the most efficiently administered hospital, with the exception of the Toronto General Hospital, in the whole of Canada. The management is excellent, owing largely to the skill and ability of Miss Reynolds, the matron, who was trained at Leeds.

(iv.) BRITISH COLUMBIA.

Vancouver.—There is a general hospital at Vancouver, the property of the town council, which, when we inspected it in the autumn of 1891, was in a most insanitary condition. It contains about twenty beds, the majority of which are crowded into one large ward without adequate ventilation or light. Two smaller wards are situated on the first floor and contain a few beds. There were no trained nurses nor any qualified matron; but the mayor and Board of Health, with the aid of the city engineer, contemplated the reconstruction of the hospital, which is then to consist of three blocks, viz. : (i.) administrative, (ii.) laundry and kitchen, (iii.) wards and necessary offices. According to latest advices no steps have yet been taken either to reconstruct or to close this most discreditable institution. At Vancouver there is also a hospital for women, a private venture in course of erection, and St. Luke's Home which supplies trained nurses, and admits paying patients at from \$10 to \$15 per week, including everything except medical attendance. A new hospital containing fifty beds has recently been opened at Victoria in this province, the buildings of which are reported to be replete with every modern appliance. The nursing arrangements are, however, inadequate, and the institution has no trained matron.

2. PRINCE EDWARD ISLAND.

The hospital of this Island is governed by a board of trustees consisting of eight members, chosen by ballot originally at a general meeting of all persons who contributed to its funds called in pursuance of the statutes relating to corporations. Two members retire every year, and the vacancies so made are filled by persons elected by ballot at the annual meeting of members, the retiring members being eligible for re-election. Vacancies caused by death,

resignation, or otherwise, are temporarily filled by persons who are appointed by the board, and who hold office until the annual meeting of subscribers next ensuing. Annual payments of \$3 constitute the contributor a member of the corporation, and payments of \$500 give life-membership. Free beds may be established either by an annual payment of \$200; by a contribution of \$3,000 as a permanent foundation; by the payment of a sum less than \$3,000 which is allowed to accumulate until it amounts to that sum, when the foundation is complete; or by annual or other contributions in such sums as the contributors may be able or willing to give for the establishment of a free-bed fund, the principal being safely invested by the trustees, and the interest being appropriated for the benefit of the poor who may require hospital treatment and care. Persons endowing free beds have the privilege of naming patients, who, after being regularly admitted, may occupy these beds. In case of vacancies when no nomination is made, the beds may be filled in the same way as the others, according to the hospital rules.

ADMISSION OF PATIENTS.

Application for admission of patients may be made at the hospital on each day of the week, Sundays excepted, during the hours of attendance of the physician, who grants permits for admission subject to the approval of the visiting committee. Accidents are received at any hour. Incurables, lunatics, and infectious cases are not admitted. In the general wards, patients pay \$2.50 per week; in private rooms, from \$3.50 to \$5 per week. These sums do not include medicines and personal washing, but medical attendance is free, except in cases where the patients have their private medical attendants. Persons unable to pay and fit subjects for hospital treatment are admitted for a reasonable time free.

The number of patients admitted during the year ending May 29, 1890, was 107, and there were 39 out-patients. The total expenditure was \$2,234.58, and the total receipts amounted to \$2,388.12, of which \$763.02 came from cash subscriptions, \$508.55 from church collections, \$432.61 from patients' fees, and \$50 from the City grant. During the year the hospital was damaged by fire, and the rebuilding cost \$706.72, which was, however, covered by insurance.

3. NOVA SCOTIA.

There appears to be only one hospital in Nova Scotia—the Victoria General Hospital, a provincial and city institution governed by by-laws and regulations of the Board of Commissioners of Public Charities. It is governed directly by a medical board composed of the consulting and attending physicians and surgeons, who hold office during the pleasure of the Commissioners. The latter appoint each month one of their number to be visiting commissioner, whose duty it is to visit the hospital twice every week, to report to his colleagues as occasion requires, and to forward to them any representations made to him by the medical board. The house-surgeon is a duly qualified medical practitioner appointed for one year, but eligible for re-election at the end of that term. The rest of the staff is composed of a steward, apothecary, clinical clerk, matron, ten nurses, and an engineer. The attending physicians and surgeons are six in number, appointed by the Commissioners, and it is arranged that the hospital shall be visited once every day, at least, by two of them. The medical board prescribe and direct the treatment of all the patients, regulate their diet, and consult upon all important surgical cases requiring operations.

ADMISSION OF PATIENTS.

In any extraordinary or pressing case, where great inconvenience would result from waiting for the approbation of the board, any commissioner, physician, or surgeon of the hospital may direct the house-surgeon to receive a patient immediately; and in case of sudden accidents the house-surgeon may receive patients without recommendation, but he must give early information of every case of admission of this kind to the Commissioners, who permit the patient to remain in the hospital, or not, as they may think proper. Incurable cases, women far advanced in pregnancy, and children under six years of age, are not received unless there are some exceptional reasons for doing so. As a broad rule, the Commissioners entertain or reject applications for admission as they think advisable, having regard to the circumstances of the hospital, but they admit no one without a previous recommendation from the medical board, the member recommending the case pronouncing it to be a suitable one for hospital treatment. The Commissioners also determine

whether the applicant shall be received as a free or as a paying patient, and in the latter case they determine the price to be paid weekly, and take such security for its payment as they may deem requisite. The minimum fee for pay-patients is \$7 weekly. During the year ending December 31, 1888, the whole number of patients in the hospital was 677; of these, 417 were discharged cured, 180 relieved, 25 unrelieved, 11 refused treatment, and 46 died—a percentage of 6.9 of those admitted; 68 remained in the hospital at the end of the year; and the daily average in hospital was 72.9. The expenses for the year amounted to \$27,072.52, of which \$7,241.81 was for provisions, \$6,665.89 for salaries and wages, \$3,999.02 for medical and surgical purposes, \$4,502.80 for house expenses, and \$1,156.87 for the medical board; the rest was spent upon the farm and stable, current repairs, extraordinary repairs and improvements, and miscellaneous articles. The earnings for the year were \$5,746.50 from the marine and fishery department, \$789.12 from paying patients, \$125.60 from the poor-asylums, \$1,266.20 from the stable and farm, while stock on hand at the end of the year represented \$2,288.41. The deficiency of \$19,145.10 is made good by the Government. A sum of \$20,000 was bequeathed to the hospital some years ago, and the land was transferred from the City to the Province of Nova Scotia by an Act of the Legislature.

4. NEW BRUNSWICK.

The only hospitals in New Brunswick are the General Hospital, St. John's, and the Victoria Hospital, Fredericton. Under the management of the Roman Catholic bishop there are also two small institutions, one at Chatham, and the other at Madanaska, where there is a small average attendance of six or seven patients; but we have no returns from either of these, and do not know whether they really come under the category of institutions described in this book.

The General Hospital, St. John's, is governed by a board of commissioners, and directly by a resident physician. A medical board of seven doctors attends the institution, which is worked on the same lines as the Victoria General Hospital in Nova Scotia. In 1890, a total of 578 patients was treated; of this number, 309 were discharged cured, 113 as improved, 38 by request, 2 as disorderly, and 27 as incurable; 27 died, and 63 remained at the end of the

year. The total number of treatment days was 18,436; the average stay of each patient was thirty-two days. The sum expended for the support of the hospital, including interest on debentures, was \$16,085.90, giving a cost per patient per day of $87\frac{1}{4}$ cents, or for hospital support alone of $78\frac{1}{2}$ cents. In the outdoor department, 1,646 patients received treatment, of whom 1,146 were medical and surgical, and 500 were eye and ear cases.

The Victoria Hospital, Fredericton, is a cottage hospital with accommodation for twenty patients, and was opened in June 1888. Government gives an annual grant of \$600 towards its maintenance, the City of Fredericton furnishes \$200 by taxation, and there are two beds endowed with \$200 each. The rest of the necessary funds is provided by Hospital Sunday collections, private subscriptions and donations, and patients' fees.

5. NEWFOUNDLAND.

ST. JOHN'S HOSPITAL.

The number of patients admitted into the general hospital during 1888 was 365, which, added to 16 remaining from the previous year, gives a total of 381. Of these, 17 died.

In addition to the patients received into the hospital at Quidi Vidi, sixty-four were admitted to the fever hospital, twenty-one suffering from diphtheria, forty-one from fever, one from measles, and one from scarlet fever. Of these, seven died, three from diphtheria and four from fever.

III MEDITERRANEAN AND AFRICAN DIVISION

1. CAPE OF GOOD HOPE.

The hospitals of this colony are eleven in number, viz. the old Somerset Hospital; the new Somerset Hospital; Grey Hospital, King William's Town; the Kimberley Hospital; the Frere Hospital, East London; Albany General Hospital; the Provincial Hospital, Port Elizabeth; the Midland Hospital, Graaf-Reinet; Queenstown Frontier Hospital; the Convalescent Home, Barkly

West; and the Victoria Cottage Hospital, Wynberg. All these institutions come under the medical department of the colony, and report to the Government through the Colonial Surgeon. Appended are all the details we have been able to learn respecting them, and so few are they in many cases that we have preferred dealing with each institution separately to tabulating the information for the whole colony.

THE OLD SOMERSET HOSPITAL.

The old Somerset Hospital receives chronic sick, paupers, lunatics, and lepers, and the movement of the population is shown below.

Table showing Movement of Population in the Old Somerset Hospital in 1889.

Admissions, &c., during 1889.	Chronic Sick and Paupers.		Lunatics.		Lepers.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	
Remaining on January 1, 1889 ...	104	58	58	59	...	...	162	117	279
Admitted during year ...	98	35	17	15	36	16	151	66	217
Discharged " " ...	43	13	6	8	...	...	49	21	70
Sent to Robben Island ...	14	3	8	5	36	15	58	23	81
Died during year... ..	32	13	3	3	...	1	35	17	52
Remaining on December 31, 1889	113	64	58	58	...	...	171	122	293

The daily average in the hospital was 289·5, and the total expenditure amounted to £5,801 10s. 9d., giving an average daily cost per case of 1s. 1 $\frac{9}{10}$ d. The fees paid by patients amounted to £551 16s. 8d. and reimbursements to £13 6s. 11d., making the total receipts £565 3s. 7d.

THE NEW SOMERSET HOSPITAL.

The total number of patients in this hospital during 1889 was 1,654, or 110 fewer than in 1888; of the total number, 1,252 were males and 402 females. The daily average number of patients was 139.

There were 235 paying patients, and the fees amounted to £1,336 9s. 9d., as compared with £1,082 9s. 1d. in the previous year. Out-patients numbered 8,334 as against 8,741.

The total cost, inclusive of salaries and irrespective of fees collected, was £9,595 12s. 3d. The actual cost to the public revenue

was £7,735 18s. 10d., the difference being represented by the fees of private patients and £523 3s. 8d. refunded for medicines and medical materials supplied to other bodies.

The daily average cost per patient was 3s. 6½d.

GREY HOSPITAL, KING WILLIAM'S TOWN.

From the 1st of January to the 31st of December, 1889, 412 in-patients were treated at this institution, of whom 26 died. There were 5,721 out-patients. The daily average of in-patients was 56, and the daily average cost of each patient, exclusive of establishment, was 1s. 4½d., and, inclusive of establishment, about 3s. 2d.

Since the establishment of the institution 128,745 cases have been treated in it.

KIMBERLEY HOSPITAL.

This institution is governed by a board of management reporting to the Government, and directly by the senior house-surgeon. The board of management holds monthly meetings, as also does the finance committee. There are five visiting surgeons, and a considerable nursing-staff.

The number of admissions during the year was 3,524, of whom 809 were Europeans. This is the largest number of European cases treated in any one year; in 1888 they numbered 792. The deaths numbered 556, as against 649 in the previous year. The daily average number of patients was 243·9, against 255 in 1888, and the daily average cost per patient was 4s. 6½d. Out-patients numbered 408, against 596 in the previous year; but according to the senior house-surgeon's report, this diminution is rather apparent than real, owing to defective registration formerly.

Nursing-Staff.

The nursing-staff of the Kimberley Hospital is supplied by St. Michael's Sisterhood. The number, forty, includes a matron, house-keeper, two seamstresses, and the nurses' home matron. The hospital is divided into seven wards, each being under the charge of a head-nurse, who has her own staff-nurse, pupils, and scrubbers. There are seven night nurses. The sisterhood maintains an extra staff of four or five nurses to supply the places of those who happen

to be absent from duty from illness or any other cause. The pupils receive bedside instruction from the doctors and head nurses, and lectures are given during the winter on anatomy, elementary physiology, practical nursing, surgery, and sick-cookery. Staff-nurses attend a second course of lectures in their second year.

In 1889, the lectures were given, and the lecturers held two examinations, one for pupils and one for staff-nurses. At the expiration of a year the probationer is expected to assume a staff-nurse's duties; but her instruction still goes on, and she has a second examination towards the end of the time. At the end of three years, if she does well, the nurse obtains a certificate, becomes a member of the British Nurses' Association, and, if she wishes to do so, enters her name on the register. The matrons at Queenstown Frontier Hospital, Barberton Hospital, De Kaap Gold Fields, and the Pretoria Private Nursing Institution all obtained their nursing experience at Kimberley.

Thirty nurses joined the staff in 1889, twelve being colonial born, and the rest coming from England, mostly for training. By permission of the board, a staff of private nurses has been formed in connection with the hospital, and besides holding their general certificate for medical and surgical nursing, the majority hold some special diploma as well. Thus, two are midwives, two are monthly-nurses, and one has a diploma as a masseuse.

Finance.

The total receipts in the general account of the Kimberley Hospital amounted to £19,690 8s. 1d., including a balance of £14 6s. from 1888. The total expenditure in the same account amounted to £20,639, showing an excess of expenditure over revenue of £948 11s. 11d.; but as the Parliamentary grant for only eleven months was received within the year, the amount due for one month from that source (£508 6s. 8d.) should be deducted from the above apparent deficiency, leaving the actual deficit £440 5s. 3d. The chief cause of this deficiency is attributed to the falling-off of the hospital tax, which was less by £1,274 10s. than in 1888, the only other main source of revenue, other than the Parliamentary grant—the fees from paying patients—showing a slight increase.

On the other hand, the expenditure shows a slight decrease, amounting to £406 7s. 2d.

Appended are the details of the general account :—

Table showing the General Account of the Kimberley Hospital, 1889.

Receipts.			Payments.		
	£	s. d.		£	s. d.
Balance in Bank, Jan. 1, 1889	14	6 0	Balance of Deposits Re-fundcd to Patients...	358	3 6
Government Grant	5,591	13 4	Salaries	5,779	17 11
Hospital Tax	7,208	11 0	Medicines and Instru-ments	2,158	4 4
Jails and Police Medi-cines	786	19 9	Provisions	9,474	14 2
Fees from Paying Patients	4,840	9 10	Clothing	555	15 0
Refund from Building Fund of amounts ad-vanced in 1886-7-8...	948	3 6	Bedding	413	10 2
Miscellaneous	300	4 8	Washing	372	15 4
Advanced from Building Fund	768	3 10	Furniture and Repairs	898	17 4
Debit Balance	180	8 1	Printing and Stationery	136	15 0
			Funerals	66	13 3
			Miscellaneous... ..	423	14 0
	£ 20,639	0 0		£ 20,639	0 0

FRERE HOSPITAL, EAST LONDON.

Four patients remained in this institution on the 1st of January, 1889, and during the year sixty-eight were admitted. The daily average number of diets was 10·7, and the average stay in hospital 26·73 days. The gross revenue was £2,563, of which £850 was derived from fixed deposit. The expenditure on establishment was £989 9s. 6d., and £650 was paid to the fixed deposit. The balance due by the town council was £910 3s. 9d.

ALBANY GENERAL HOSPITAL.

The total number of in-patients in 1889 was 387, with a daily average of 35·06. The total income for the year was £4,431 8s., of which £1,479 3s. 4d. was granted by Government, besides £500 in aid of building and £150 on account of the contagious diseases' hospitals, in connection with which an isolated building is in process of erection. Paying patients' fees amounted to over £450, and in addition to public subscriptions towards building, which amounted to £551 9s. 4d., other collections, subscriptions, and donations for ordinary purposes amounted to £474 3s. 4d.

The daily average cost of patients was 3s. 9d. per head.

PROVINCIAL HOSPITAL, PORT ELIZABETH.

On the 1st of January, 1889, there were 66 in-patients at this institution, and 946 were admitted during the year, giving a total of 1,012. Of these, 864 were discharged cured or otherwise, and 85 died, leaving 63 in residence at the end of the year. In-patients showed an increase of 230 over the previous year, and the work of the institution is growing so rapidly that the present accommodation will soon be wholly inadequate. Private rooms for paying patients or for isolating cases are in great demand. Out-patients numbered 5,387, as against 7,347 in the previous year; but it is said that this department is still greatly abused.

The total revenue was £5,958 4s. 1d., of which £3,000 came from the Government grant, and £1,041 2s. 6d. from paying patients. The average daily cost of patients was 3s. 8d. per head.

MIDLAND HOSPITAL, GRAAF-REINET.

In-patients numbered 110 in 1889 as compared with 85 in the previous year; the out-patients numbered 794, as against 488. There was a slight increase from fourteen to sixteen paying patients, and the fees rose in greater proportion—from £50 14s. 3d. in 1888, to £117 4s. 6d. With regard to the expenses, the average cost of each patient was lower than it was in the year before, being 3s. 1 $\frac{3}{4}$ d. per diem, inclusive of salaries, medicines, provisions, &c., and 3s. 9 $\frac{1}{4}$ d. inclusive of the extra cost of building, insurance charges, and repayment of loan, as compared with 3s. 4 $\frac{1}{2}$ d. and 4s. 1 $\frac{1}{4}$ d. in 1888. The total revenue was £1,378 14s. 9d., of which £1,100 was derived from the Government grant and £117 4s. 6d. from paying patients.

QUEENSTOWN FRONTIER HOSPITAL.

This institution received 145 in-patients in 1889, and treated 607 out-patients, both departments showing an increase over the previous year, when the numbers were 120 and 154 respectively. The total receipts were £2,373 14s. 4d., and the average daily cost for each patient in hospital was 4s. 1 $\frac{1}{2}$ d.

OTHER INSTITUTIONS.

In addition to the institutions of which details have just been given, there is a convalescent home at Barkly West, where patients

are received at a charge which in 1889 amounted to 12s. per diem. There is also one free bed for the use of diggers, among whom, however, in 1889 no accidents occurred.

At Wynberg, the Victoria Cottage Hospital was formally opened on the 25th of June, 1888, and between that date and the end of 1889 admitted 85 patients, of whom 72 were discharged and 13 died. It is maintained principally by private subscriptions and by a Government grant, the total revenue in 1889 being £759 18s. 7d., and the expenditure £437 15s. 2d.

2. GIBRALTAR.

THE CIVIL HOSPITAL.

The Civil Hospital, Gibraltar, was erected in 1815, and was the natural outcome of the inconvenience and distress previously experienced from the want of a proper place for the reception and care of sick civilians in the garrison. The hospital and its funds are under the direction of a board of deputy-governors representing the respective religious persuasions and the local Government, one of them being a medical officer. The Governor of Gibraltar is president and patron of the institution, and has the right of presiding at all meetings of the board. The surgeon is the chief executive officer, and is held responsible for the conduct of the institution. In April 1885, an Ordinance was promulgated "to provide for the future management and upkeep of the Civil Hospital in Gibraltar." By this Ordinance it is enacted that the deputy-governors shall be elected annually, and be approved by the Governor, the elections without such subsequent approval being null and void. No person is qualified to vote at these elections who is not an annual subscriber of at least 20 pesetas to the Civil Hospital, the British Poor Fund, the Hebrew Poor Fund, the Gibraltar Public School, the Catholic Poor School, or the Wesleyan Missionary School. The board meets at the hospital once at least in every month for the transaction of ordinary business, and holds extraordinary meetings for the transaction of special business when required to do so by the Governor by warrant. At the board meetings the presence of three deputy-governors is necessary to form a quorum, and all their resolutions are submitted to the Governor for his approbation. No deputy-governor, and no person being in partnership with a deputy-

governor, is allowed to enter into contract for the supply of any goods to the civil hospital, or for the execution of any works connected with it, under penalty of a fine of 1,250 pesetas (nearly £50), recoverable summarily by law. They may appoint the medical officers, the secretary and treasurer, and the servants and attendants of the institutions, but in the two former cases their selections must be approved and confirmed by the Governor.

Maintenance.

The income for the maintenance of the hospital is derived chiefly from Government sources, the rest being provided by patients' fees and bequests. Prior to 1885 a separation was made between the funds contributed by the various religious sections of the community, but since the passing of the Civil Hospital Ordinance, in 1885, the funds contributed for the support of the hospital from the Colonial Government, the War Department, all charitable trusts, the annual payment made by the Spanish Government, and from all other sources, including all amounts received from patients' payments, have been amalgamated into one general fund, and administered for the maintenance of the patients and the upkeep of the hospital generally, without religious distinction of any kind. The trustees of John Gavino's estate continue to make payments to the deputy-governor representing the Roman Catholic community of the funds intended exclusively for the Roman Catholic inmates of the hospital, and the deputy-governor in turn pays over all these funds and the net rentals of all properties in Gibraltar temporarily vested in him as the Roman Catholic representative, to form part of the general fund. This applies equally to the trustees of the Hebrew Poor Fund, who continue to make payments of trust funds to the deputy-governor of the Hebrew community, who pays them over to the treasurer to form part of the general fund. The Government grant-in-aid is £1,400 per annum, and the total income in 1884 was £1,859 3s. 8d.; while the expenditure was £1,858 11s. 6d., exclusive of diets, nurses, and funerals, which were defrayed from voluntary contributions amounting to £1,669 13s. 9d.

Admission of Patients.

In-patients are admitted by order of the Governor or any deputy-governor; by any duly qualified medical practitioner in cases of accident or disease of pressing necessity certified as such;

and in urgent cases at the discretion of any medical attendant of the Civil Hospital, or in his absence of the secretary and treasurer.

No aliens, mariners excepted, are received, unless they have a permit of residence or the cases are of extreme urgency. Some indigent cases pay no fees, and some who are considered paupers and recommended by the police are maintained at the Government expense.

With regard to out-patients, a public dispensary is maintained at the Civil Hospital, at which medical advice and medicines are furnished gratuitously to indigent persons certified to be such by any deputy-governor, minister of religion, justice of the peace, district medical officer, or the Chief Inspector of Police. More recently, however, a payment of 50 centimes has been exacted from all out-patients who are not provided with a certificate of indigence.

THE SMALL-POX HOSPITAL.

This institution is a branch of the Civil Hospital under the management of the deputy-governors, and maintained by a yearly grant of £100. It is intended to give relief to persons who are suffering from infectious diseases other than yellow fever, cholera, and plague, and who are on board vessels frequenting the Bay, without their being conveyed through the town for treatment, as was previously the practice. It has accommodation for five patients, and is comfortable and well situated.

3. GOLD COAST COLONY.

The information we have received from the Gold Coast is very meagre, apparently because there is very little to be said about the institutions in existence there. The hospitals are three in number, viz. the General Hospital, Accra, the Colonial Hospital, Cape Coast Castle, and the Colonial Hospital, Elmina. The aggregate number of beds was 110 in 1885, there being fifty-two beds at Accra, thirty-eight at Cape Coast, and twenty at Elmina; and the average numbers occupied throughout the year were twenty-seven, thirty-six, and fourteen respectively. All three institutions originated as dispensaries for the treatment of inferior Government officials, and were subsequently extended to the public at large. They are all managed by the chief medical officer, who, as head of the Medical

Department, is held responsible to the Governor for the efficient state of the hospitals and the department. With regard to the nursing, the existing arrangements, as we have pointed out in another chapter, seem to be very unsatisfactory, and thorough remodelling of this department is imperative. At Accra, nurses of both sexes are employed, but at the other institutions there are only male nurses, who have absolutely no instruction or training before taking up their duties. They are generally engaged in the first place merely as messengers, and then work their way up as vacancies arise. The salary in all cases is £24 per annum for males, and, at Accra, £18 per annum for females. It is not even necessary that they should have a thorough knowledge of the English language.

At the General Hospital, Accra, only paupers and Civil Servants are seen as out-patients, and it is from these classes that the in-patients also are derived, except in a few cases where paying patients are specially admitted. The admission of paying patients was tried in 1884 without any definite scale of fees. At Cape Coast Castle both in- and out-patients are admitted, but on no system, except that medical treatment and advice can there be obtained by all applicants. At Elmina, also, both are received, but from want of accommodation the in-patients are chiefly members of the constabulary, the non-official population being received only in serious cases of accident. With increased accommodation, the benefits of gratuitous medical treatment will doubtless be extended to this latter class of the community.

The Accra hospital was built in 1881, at a cost of £2,400, and at the date of our information had not been enlarged, although plans were then being made for an extension to meet its increasing demands. The Cape Coast hospital is a quadrangular, one-storeyed block, inclosing a yard, with wards and offices on three sides, and a dispensary and out-patients' room on the fourth. The Elmina hospital was formerly a merchant's house, and has been adapted to its present purpose without any modifications.

4. MALTA AND GOZO.

There are in these islands four hospitals for the sick, three in Malta and one in Gozo. Those in Malta are—the Central Hospital, intended for the sick of the town and a certain radius around; the Hospital of Incurables, for patients from all parts of the island;

and the Hospital of Santo Spirito, for the sick of the country districts, and for convalescents from the Central Hospital. All these institutions present structural defects which greatly interfere with health, comfort, and discipline, the Hospital of Santo Spirito in particular having been laid out as long ago as the year 1300 A.D., and, in spite of material alterations in after years, still containing all the evidence of the ignorance of those bygone ages. It was originally attached to the Convent of San Francesco, but was subsequently handed over, together with its income from various private legacies, to the jurats or aldermen of the City of Notabile, the ancient capital of the island. The Central Hospital derives its origin from, and has succeeded to, the Sacred Infirmary of the Knights Hospitallers of the Order of St. John of Jerusalem; and the Hospital of Incurables was founded by a benevolent lady, Catarina Scappi, of Siena, and partly endowed by her.

The hospital of Gozo owes its origin to one Giovanni Maria Camilleri, canon of the Mother Church of that island, who left all his property for its speedy erection, with a view of "putting an end to the cruel and painful necessity of having to transport the sick of Gozo to the hospitals of Malta." It was laid out in the year 1726 by the knight Henri Mondion de Paris, a clever military engineer, and, had it been possible to maintain its original arrangement, would have been the least defective in construction of all the civil hospitals.

There are no other hospitals in these islands for the use of the civil population; but the military—that is, the garrison—have three district hospitals and a sanatorium,—the Valletta hospital, formerly the Sacred Infirmary of the Knights of Malta, and fully described by John Howard, the great philanthropist; the Cottonera Hospital, of quite recent date; and the Forrest Hospital, an old seaside villa of the Balè Spinola, lately converted into sick quarters for soldiers stationed at Pembroke Camp in its vicinity. The sanatorium at Civita Vecchia was governed by the Knights, the Palais de Justice of the country districts. The adjacent "arcades" is the Belvidere for the convalescent, commanding one of the finest views of the island.

There is also a naval establishment for the sick of the Mediterranean Fleet, called the Bighi hospital. It stands on an excellent site near the entrance to the Grand Harbour, commanding a view of the sea and the shipping. The central building, occupied by the chapel, dispensary, and stores, is the original villa

of the Balè Bighi; the wings are adjuncts erected by the Naval Department in the years 1832–33.

Management.

All the public charities of these Islands constitute a department officially designated the Department of Government Charitable Institutions. It is presided over by a head officer known as the Comptroller of Charitable Institutions, who is *ex officio* member of the Council of Government. A body of fifteen commissioners, appointed by Government, inspects the several establishments and transacts certain business connected with the same, but has no power of framing and enforcing regulations without the consent and approval of Government. A code of regulations originally made by Government is published for the guidance of the commissioners. By it they are authorised to investigate all appeals made to them by any servant or officer of the institutions, and if need be to report to the Government; to suspend servants for misconduct, and, in flagrant cases, recommend dismissal; to suggest persons for appointment on vacancies occurring; and to make an annual report on the charitable institutions to the Government. No municipal institutions exist in these islands, as their small extent, Malta being sixty and Gozo only thirty miles in circumference, can reasonably only admit of one municipality, which has hitherto been represented by the Government. Such institutions may, however, be established hereafter if it should seem well to do so.

Nursing.

The nurses are carefully selected from the general unemployed labour of the islands, and are ordinary paid officials at various salaries, under the superintendence of the Sisters of Charity and the house-surgeons of each institution. There are no volunteers, but a few benevolent individuals occasionally co-operate in nursing the sick poor. The nurses are male and female, and do duty in the male and female wards respectively, taking charge of every case admitted. The proportion of nurses to patients is one to ten. Previous to their engagement they are not trained, but when taken on the establishment they are instructed by a medical officer appointed for that purpose. The system followed is that of the London hospitals, modified and adapted to the class of nurses procurable in the islands. The rate of wages varies from 1*s.* to 2*s.* 2*d.* a day, and pensions are allowed only to such nurses as are borne

on the fixed establishment, the pensions being regulated according to the Superannuation Act of the Imperial Parliament, and paid out of the general revenue of the islands.

Maintenance and Expenditure.

The hospitals of both islands are maintained wholly by the Government from the general public revenue, the private endowments and legacies belonging to the same having been merged into the Government treasury some years ago. The source of income of each, however, is still separately accounted for in the Government records. The Central Hospital has no private endowment of any description, but a small set-off against its expenditure is derived from a limited number of paying patients, the average income obtained from this source being between £700 and £800 a year. On the other hand, the average cost to the Government of the whole establishment was £5,021 per annum.

The Hospital of Santo Spirito has an annual income from landed property of £467, with moral burdens thereon amounting to £12. It, however, costs Government £1,088 per annum.

The Hospital of Incurables has an income from the foundation of £299, and its cost averages £2,422 per annum.

The Hospital of Gozo has the property of its founder, yielding an income of £115, but the entire establishment requires £791 per annum for its maintenance, and towards this the Government provides a subsidy.

We should add that no periodical general reports are drawn up by the Department of the Government Charities of Malta, and the information we have been able to obtain first hand reached us some time ago. The regulations and instructions were drawn up in 1851, when material changes were introduced in the whole department. Considerable improvements have since been made in the organisation and administration of the several institutions and the medical services connected therewith, with a view of securing a more efficient system of public relief in these islands.

5. NATAL.

In 1889 there were in this colony nine hospitals, visited officially or unofficially by the Governor and Colonial Secretary, by the Government inspectors, and by the governors of the institutions or

their committees. The following is a summary of the work done in these hospitals during the year 1889 :—

Table showing the Movement of Population in the Hospitals of Natal during 1889.

		Grey's Hospital.	Durban.	Deport.	Avoca.	Verulam.	Isipingo.	Umzimto.	Estcourt.	Howick Indian Hospital.
Remaining January 1, 1889	...	31	40	7	6	11	5	8	0	0
Admitted in 1889	...	527	765	425	232	275	64	344	48	49
Total treated	...	558	805	432	238	286	69	352	48	49
Discharged	{									
Cured	...	411	623	332	142	226	62	245	43	47
Relieved	...	43	50	35	55	6	...	72	2	...
Not improved	...	...	16	16	17	5	1	22	...	...
Died	...	67	116	26	18	30	6	13	3	2
Remaining December 31, 1889	...	37	0	23	6	19	0	0	0	0
Daily average	...	31.14	59.7	21.8	9	12.75	5.6	7	1.7	1.9

IV. AUSTRALASIAN AND EASTERN DIVISION.

1. NEW SOUTH WALES.

Mr. Coghlan, in his "Wealth and Progress of New South Wales," gives so complete and terse an account of the hospitals in that colony that we cannot do better than reproduce it here :—

"STATE ASSISTANCE TO CHARITIES.

"The chief efforts of the State, as regards charity, are directed towards the rescue of the young from criminal companionship and temptation to crime, the support of the aged and infirm, the care of the imbecile or insane, and the subsidising of private charity, for the cure of the sick and injured, and the amelioration of want.

"SUPERVISION OF EXPENDITURE.

"Even where the State grants aid for philanthropic purposes, the management of the institutions supervising the expenditure

is in private hands ; and in addition to State-aided institutions there are numerous private charities, whose efforts for the relief of those whom penury, sickness, or misfortune has afflicted are beyond all praise.

“NECESSITY FOR HOSPITALS.

“ . . . It has been pointed out that the number of deaths caused by accidents is very great. This arises from the peculiar nature of the occupations in which a large proportion of the adult male population is employed. Though New South Wales has long been settled, its resources are by no means developed, and very many men are at work far away from the home comforts of every-day life, and from home attendance in case of sickness or injury. Hospitals are, therefore, absolutely essential under the conditions of life in the country districts of the colony, and they are accordingly found in every important country town. At the close of the year 1889 there were in operation in the colony eighty-four hospitals or infirmaries, all of which, with the exception of St. Vincent's Hospital in Sydney, were assisted by the State.

“ACCOMMODATION IN HOSPITALS.

“ In these hospitals accommodation was provided in 388 wards or dormitories, having a total capacity of 2,935,602 cubic feet, so that the average air space to each dormitory was 7,566 cubic feet. There were 2,181 beds, and the average air space to each patient was a minimum of 1,350 cubic feet ; but as the hospitals are rarely filled to the limit of their accommodation, the air space to each patient was as a rule greater than the minimum just stated.

“PERSONS UNDER TREATMENT.

“ During the year (1889) 16,865 persons were under treatment as indoor patients. Of this number 1,233 remained from the previous year, and 15,632 were admitted during 1889. There were discharged 13,838 persons, either as cured or relieved, or at their own request, and 239 as past all human assistance, while 1,477 died. The number remaining in hospital at the close of the year was, therefore, 1,311. The following statement shows the number of admissions, discharges, and deaths for the past eleven years :—

"Number of Cases treated in Hospitals.

Year.	Total Patients under Treatment.	Number discharged as cured, &c.	Deaths.		Number of Patients at the close of Year.
			Number.	Per Cent.	
1879	7,560	6,021	755	9·98	784
1880	8,315	6,656	847	10·18	812
1881	9,136	7,275	946	10·35	915
1882	8,445	6,855	894	10·58	696
1883	8,245	6,659	796	9·65	790
1884	9,318	7,375	952	10·21	991
1885	12,793	10,449	1,329	10·38	1,015
1886	13,115	10,825	1,249	9·52	1,041
1887	13,438	11,140	1,190	8·85	1,108
1888	15,176	12,519	1,424	9·38	1,233
1889	16,865	14,077	1,477	8·76	1,311

"AVERAGE NUMBER OF HOSPITAL CASES.

"The number remaining at the close of the year may be taken as representing the average number resident. It will be seen from the preceding table that the increase has been fairly regular, so that the proportion of the population to be found in hospitals is about the same each year, and averages 1·16 per thousand. The length of time during which patients remain under treatment has not been exactly determined; but as far as the information extends it would appear the average is about twenty-eight days for all hospitals. In the Sydney Hospital the average stay of patients during the year 1889 was 26·12 days. It is interesting to note that patients received under orders from the Government, remained in hospital on the average longer than those paying for or contributing towards their own support.

"DEATH RATES IN HOSPITALS.

"The death-rate per 100 persons under treatment during the past ten years was 9·67, while the rate for 1889 was 8·76, or ·91 below the decennial average. The rate for each year will be found in the preceding table. The death rate of hospitals in New South Wales, compared with Europe, is undoubtedly very high. The number of fatal cases is swollen by the inclusion of the deaths of persons already moribund when admitted, and of persons already in the last stage of phthisis. It has been pointed out that deaths

from accidents form a very considerable proportion of the total deaths registered, a circumstance due to the nature of the occupations of the people, and the dangers incidental to pioneering enterprise. A large majority of the accidents that occur are treated in the hospitals; and indeed these institutions, especially in country districts, are for the most part maintained for the treatment of surgical cases. When these circumstances are taken into consideration, the cause of the apparent excess of deaths in the hospitals of the colony will be at once understood.

“VOTE FOR PAUPER PATIENTS.

“The amount voted by the Legislature for the maintenance of sick paupers in the year 1889 was £9,817 10s. 6d., which was distributed thus:—Sydney Hospital (including Moorcliff) for the maintenance of pauper patients, £6,560 18s.; Prince Alfred Hospital for the maintenance of pauper patients, £3,190 16s.; Railway Department for the carriage of pauper patients, £53 6s. 6d.; incidental expenses, £12 10s. During the year there were 4,753 applications for admission into the metropolitan hospitals, of which number 2,648 were granted; the other cases received recommendations for admission to the asylums for the infirm and destitute, orders for outdoor hospital treatment, or were refused as unfit subjects for State relief. 1,147 persons were admitted into these hospitals as urgent cases; the remainder were admitted on recommendations from the hospital admission depôt.

“COST TO THE STATE.

“During the past three years the Sydney Hospital, including the Moorcliff branch for ophthalmic cases, has received from the Government for the maintenance of sick paupers £17,300, or an average of £5,766 a year, and the Prince Alfred Hospital £14,820, or an average of £4,940 a year. These sums are in addition to the £4,000 a year given as a conditional endowment to each of these hospitals, and £400 a year which the Government pays as the rent of Moorcliff. The total sum paid by the Government to the Sydney and Prince Alfred Hospitals during the last three years, exclusive of subsidies for special purposes, was £57,320, or an average of nearly £19,107 a year. The expenses of the Coast Hospital, which are borne entirely by the Government, average

£9,735 annually for the same period, so that about £30,000 a year is spent by the Government in medical relief in the metropolis, in addition to grants to suburban and country hospitals, payments for attendance of aborigines, expenses attending special outbreaks of disease in country districts, which are met from the general medical vote, and the maintenance in the asylums for the infirm and destitute of a large number of chronic and incurable hospital cases.

“OUTDOOR RELIEF.

“No exact information is to hand respecting the outdoor relief afforded by hospitals, this form of charity not being so important as indoor relief; nevertheless the number of attendances during 1889 was 49,208, and estimating four attendances to each person, there were relieved 12,302 persons.

“EXPENDITURE ON HOSPITALS.

“Omitting from consideration the Government establishment at Little Bay, the expenditure in 1889 of all the hospitals of the colony, for purposes other than building, repairs, and outdoor relief, was £104,110, representing an average of £79 8s. 3d. per patient resident, or for each bed occupied. This sum is somewhat in excess of the truth, as full deduction cannot be made for out-patients. The average cost per patient treated was £6 13s. 2d. The subscriptions received from private persons amounted to

“*Table showing the Revenue and Expenditure of Hospitals in New South Wales during 1889.*

	Metropolitan.	Country.	Total.
	£	£	£
Government aid	30,438	30,061	61,399
Private contributions	20,670	30,300	50,970
Other sources	10,690	9,902	20,592
Total Receipts	61,798	71,163	132,961
Building and repairs	7,008	24,289	31,297
Maintenance... ..	48,092	41,923	90,015
Miscellaneous	5,153	10,122	15,275
Total Expenditure	60,253	76,334	136,587

£39,074, and the miscellaneous receipts, including payments by patients, were £32,488, in all £71,562 from private sources and from patients. From Government the sum of £61,399 was received, so that the total revenue of hospitals from all sources was £132,961. The foregoing statement shows the revenue and expenditure of these institutions for the year 1889.

“TOTAL EXPENDITURE BY THE STATE.

“The expenditure in connection with the Little Bay Hospital has not been included above, being entirely in the hands of the Government. At this hospital 1,817 patients were treated during the year, including thirteen lepers, or an average of 199 patients per day. The average stay in hospital was forty days. There were ninety-nine deaths, and 1,369 patients were discharged cured during the year. The cost of this institution was £11,729, so that the total expenditure of the State on hospitals amounted to £73,128, and the gross expenditure by the Government upon all hospitals and asylums, with the exception of asylums for the insane, was £147,060. This sum includes £24,595 to the State Children’s Relief Department, £13,692 paid to support the asylum for old men at Liverpool, £8,565 for the asylum for aged and infirm women at Newington, Parramatta River, £19,995 for the two asylums at Parramatta, and £7,085 for the Benevolent Asylum, Sydney.”

THE COAST HOSPITAL, LITTLE BAY.

This institution was originally designed as a quarantine station and sanatorium, was then used as a convalescent hospital for patients from the Sydney and Prince Alfred Hospitals, and has gradually grown into a general hospital to supplement the work and supply the deficiencies of the other metropolitan hospitals. Lately the need for accommodation for acute cases has rendered it impossible to admit convalescents, and the Carrington and Walker Convalescent Hospitals are now more than ever necessary to meet the need for accommodation for this class, and to relieve the wards of the metropolitan institutions. The Coast Hospital is now: (1) a fever hospital; (2) a hospital for infectious diseases, scarlet fever, measles, diphtheria, &c.; (3) an erysipelas hospital; (4) a general hospital for medical and surgical cases; (5) a lock hospital for males; and (6) a home for lepers. Every class of

disease is thus admitted and treated, except small-pox, insanity, and lock cases in females. Before very long an Act will be passed enjoining the notification of infectious diseases, and when this is done the Coast Hospital will probably be devoted entirely to the reception of infectious diseases, while many of the general hospital cases will be treated instead in a sick asylum or poor-house hospital. At present this institution forms an indispensable part of the metropolitan hospital system, and as an infectious diseases hospital its usefulness is increasing every year. The cost per head in 1889 was £41 13s. 5d. exclusive of the ambulance service, and £51 18s. 6½d. inclusive of this item. The ambulances are used not only for conveying patients to the Coast Hospital, but for the services of the Health Department generally, and for the occasional removal of Government patients to the other metropolitan hospitals. Always a large expense, the ambulance service was unusually costly in 1889, being £1,414 8s. 8d., as against £1,152 1s. 3d. in 1888, the increase being due to a rise of nearly 50 per cent. in the price of forage and to the necessity of replacing old ambulances by new and improved conveyances. The high contract rate for provisions and an increase to the staff also helped to swell the maintenance rate.

2. VICTORIA.

The hospitals of Victoria are supported by voluntary contributions and grants in aid from the Government, the latter forming at present the larger proportion of the total receipts. The Government inspector in his report, dated October 3, 1889, says that the allocation of the Government grant still appears as the principal subject of criticism, and that until some reformation is effected in the mode of its distribution, jealousy and dissatisfaction are sure to exist. A suggestion has been made and partially put into effect that, instead of employing collectors to obtain subscriptions for the support of the charities, funds should be raised by means of municipal grants, and this proposal is gaining favour. Under the existing system the collectors are paid principally by commission, and frequently receive a salary in addition. Besides the expense involved in the employment of these collectors, there is the further disadvantage that the committees are left in uncertainty as to the amount of money they may have at their disposal. The collectors generally confine their canvassing to the

same circle of supporters, and break but little new ground, since a journey to the remote places involves them in expense, and takes up time, whilst the results, which are always uncertain, may be disappointing.

The cost of collecting diverts a considerable sum of money annually from the maintenance of the charitable institutions. Amongst the metropolitan establishments, the cost for collecting at the Women's Hospital was at the rate of £7 8s. 2d. for the number of patients calculated on a daily average, while Wangaratta headed the list of country establishments with a cost of £7 7s. At Nhill and Horsham, where arrangements have been made between the hospital committees and the Shire and Borough Councils that a certain amount of the rates, proportionate to the requirements, shall be set apart for the district hospital, very satisfactory results are claimed, one of these being a saving of at least 30 per cent. on the amount of money collected under the old system.

NECESSITY OF MAKING INQUIRIES AS TO THOSE MAKING USE OF THE CHARITIES.

The Government inspector draws fresh attention to the abuse of charities by persons who are not proper subjects for charitable aid. Business men cannot afford the time and trouble necessary to satisfy themselves of the *bona fides* of every case, and although some few of the metropolitan institutions have test cases inquired into by the Charity Organisation Society, yet at the Melbourne, which is the largest hospital in the colony, almost complete reliance is placed on the subscribers having satisfied themselves as to the merits of the cases to which they give tickets. Admission is practically secured when once a subscriber's ticket has been obtained, provided the case is suitable from a medical point of view; and, as the chances of imposition being detected are very remote, it is highly probable that the hospitals are largely abused by persons who are perfectly competent to pay for medical treatment themselves. Except in cases of emergency, the inspector strongly recommends that systematic inquiry should be made into all cases admitted into charitable institutions or seeking any charitable relief, or, at all events, that such inquiry should be made into a few cases each week. At the benevolent asylums the committees grant admission solely upon the applicant's representations, supplemented

by the information furnished on the recommendation order given by a subscriber. This information must frequently be obtained from interested channels, and yet this is all that is required to secure the applicant's admission—which is practically permanent—into these institutions. A general periodical review of the cases would reduce the chances of imposition, or, at any rate, would prevent a man who had been discharged from one asylum for fraud or misrepresentation being immediately received into another. As it is, this has actually happened in more than one instance. Again, there are many inmates of these establishments who ought to be maintained wholly or in part by their relatives. Until some law is passed dealing with this matter the committees are powerless, and can only study the requirements of each individual case that may come before them. The report adds: "Whilst recognising the fact that an increase in the accommodation has not been commensurate with that of the population of the metropolis, yet it is doubtful whether the 'increased hospital accommodation movement' has not been overdone. It would have been wiser to have at the same time considered whether the hospitals were not being to a great extent made use of by those who do not really need charitable assistance."

MONEYS IMPROPERLY KEPT FROM MAINTENANCE.

It is a common practice at many institutions to add annually to the Endowment Fund the interest derived therefrom. Except in the case of very large legacies or donations, the suggestion is made that, when sums are placed to the Endowment Fund without good reason, the Government should reduce its grant by a corresponding amount. The excuse given for augmenting the Endowment Fund by every available means is that at some time the Government will throw upon the districts greater responsibilities than they can now bear in regard to the support of their respective charities. In the meantime what happens is this: when a large sum is bequeathed to any institution and placed to this fund, not only is the donor's annual subscription lost to the maintenance of the sufferers he intended to assist, but the money accumulates for the benefit of future generations, who may quite reasonably be expected to bear their own obligations.

FEMALE NURSING STAFF, BALLARAT HOSPITAL.

On the subject of nursing, the inspector-general, in this same report, says: "I am glad to be able to state that at another of the principal country hospitals—viz., Ballarat—a female nursing staff has taken the place of wardsmen. The committee, in effecting this change, have not entered half-heartedly into the matter. Proper accommodation has been provided for the nurses, and they are expected to attend to the nursing alone, not nursing and house-cleaning as well. It is to be hoped that this wise distinction between the nurse and the housemaid will be more generally followed elsewhere. It is certain that, as in England, very many women of culture and refinement will enter *con amore* into nursing as a profession. We shall then no longer hear that properly trained nurses are difficult to obtain in Melbourne, or that at the Trained Nurses' Home the committee find it necessary to send to England for those properly qualified.

"There has been an improvement of late in the status of a nurse in Melbourne, but there is room for a much greater advance in this direction. Our largest hospital, the Melbourne, ought to institute a regular course of training, and should endeavour to make the life of a nurse as pleasant as is consistent with the work. The better and more refined the nurse, the better for the patient."

In the thirty-four hospitals, excluding those which are also benevolent asylums, there is now a total nursing staff of 44 males and 194 females. There are 62 female nurses at the Melbourne Hospital alone.

ASYLUM PATIENTS IN HOSPITAL.

Difficulties are experienced at the country hospitals in gaining admission to asylums for those who no longer require hospital treatment and who, besides occupying beds which are urgently needed, interfere by their presence in the hospitals with the efficacy of those institutions as hospitals. For instance, between Ararat and the South Australian border there is but one asylum—viz. at Stawell (which is both an asylum and hospital with separate asylum accommodation). There are hospitals at Nhill and Horsham, but the committee of the Stawell institution refused without payment to relieve the Horsham hospital of cases which undoubtedly no longer required retention in a hospital. In many itinerant cases it is merely a chance

to which institution they repair, and the hospitals must either refuse admission to cases that cannot be discharged when necessary, or there will have to be an asylum in the immediate neighbourhood of every hospital, which would involve a needless multiplication of institutions.

ACCOMMODATION.

Table showing the Hospital Accommodation in Victoria.

Institutions.	Number.	Dormitories.		Number of Beds for Inmates.	Number of Cubic Feet to each Inmate.
		Number.	Capacity in Cubic Feet.		
General Hospitals ...	39	352	3,147,011	2,430	1,295
Women's Hospital...	1	21	118,000	70	1,686
Children's Hospital ...	1	9	59,176	70	845
Eye and Ear Hospital ...	1	6	33,322	43	775
Convalescent Homes ...	2	...	...	25	...
Total ...	44	...	...	2,638	...

Although by the regulations of the Central Board of Health in Melbourne 1,200 cubic feet is the minimum space allowed for each individual in hospital wards, yet the General and Women's Hospitals are the only institutions where this amount is attained.

Table showing the Number of Inmates and Deaths in the Victorian Hospitals in 1888-9.

Institutions.	Number of Inmates.		Number of Deaths.	Proportion of Deaths to Total Number of Inmates.
	Total during Year.	Daily Average		
General Hospitals ...	17,848	1,833·5	2,160	per cent. 12·10
Women's Hospital*...	1,160	43·2	28	2·41
Children's Hospital...	983	57·0	77	7·83
Eye and Ear Hospital	443	39·4	3	·68
Total ...	20,434	1,973·1	2,268	11·09

* Exclusive of infants.

RECEIPTS AND EXPENDITURE.

The total receipts of all the Victorian Charitable Institutions in 1888-9 amounted to £401,930, of which £229,041, or not quite three-fifths, was contributed by Government; and the expenditure amounted to £382,362. Of the Government contribution £120,267 was expended on the Hospitals for the Insane, the Idiot Asylum, and the Industrial and Reformatory Schools, which are Government institutions; and the balance (£108,774) was distributed as grants in aid to the other institutions.

Table showing the Receipts and Expenditure of the Victorian Hospitals in 1888-9.

Institutions.	Receipts.			Expenditure.
	From Government.	From other Sources.	Total.	
	£	£	£	£
General Hospitals ...	65,474	85,884	151,358	135,935
Women's Hospital ...	2,500	3,714	6,214	6,218
Children's Hospital...	250	5,153	5,403	4,585
Eye and Ear Hospital	800	2,244	3,044	2,921
Total ...	69,024	96,995	166,019	149,659

Table showing Average Cost of each Inmate in the Victorian Hospitals in 1888-9.

Institutions.			Daily Average Number of Inmates.	Total Cost of Maintenance.*	Average Cost of each Inmate per Annum.		
				£	£	s.	d.
General Hospitals ...	...	...	1,833·5	113,560	61	18	9
Women's Hospital ...	...	...	43·2	5,795	134	3	0
Children's Hospital...	...	...	57·0	4,459	78	4	7
Eye and Ear Hospital	...	...	39·4	2,538	64	8	4
Total ...	...	...	1,973·1	126,352	...		

* The amounts in this column represent the expenditure of the institutions less the cost of building and repairs and of outdoor relief.

HOSPITAL SATURDAY AND SUNDAY.

In Melbourne and the suburbs, the last Saturday and Sunday of October in each year are set apart for making collections in aid of the charitable institutions. The first year of the movement was 1873, when £4,219 was collected, and the amount rose annually until 1888, when it was £14,416. In 1889 there was a decrease, the total being £11,459; of this sum £10,900 was distributed.

The following table shows the institutions which benefited :—

Distribution of Hospital Saturday and Sunday Fund, 1873-89.

Institution.	Amount distributed.		
	1873-1888.	1889.	Total.
Melbourne Hospital	£ 39,277	£ 2,985	£ 42,262
Alfred Hospital	16,128	1,992	18,120
Benevolent Asylum	12,225	872	13,097
Women's Hospital	9,947	954	10,901
Children's Hospital	11,588	1,397	12,985
Eye and Ear Hospital	5,801	549	6,350
Homœopathic Hospital	4,436	883	5,319
Immigrants' Aid Society	4,675	385	5,060
Richmond Dispensary	800	50	850
Collingwood Dispensary	1,085	100	1,185
Austin Incurable Hospital	3,839	533	4,372
Convalescent Home for Women	90	100	190
" " Men	75	100	175
Total distributed	109,966	10,900	120,866
Total collected	117,252	11,459	128,711

3. TASMANIA.

The charitable institutions of Tasmania may be divided into three classes: (1) those maintained entirely by Government; (2) those assisted by Government; and (3) those maintained entirely by private effort.

Of these the first class includes the hospitals of Hobart and Launceston, which are practically maintained by the Crown, although patients who are in a position to do so have to pay a fixed scale of charges. Both institutions are managed by boards

appointed by the Governor. At the Hobart Hospital the board is composed of a chairman and vice-chairman, with the mayor of Hobart and the honorary medical officers of the hospital as *ex-officio* members, together with eleven non-official members and a secretary. Destitute patients may be recommended for indoor treatment by the chairman of the board of management, the chairman of the visiting committee, the honorary medical officers, the mayor, the police magistrate of the district, and the chairman of the Benevolent Society; they are subject to inspection by the house-surgeons, who determine their eligibility for admission as in-patients.

The staff consists of a house-surgeon, assistant house-surgeon, a secretary (who also combines the offices of clerk, steward, and storekeeper), a lady superintendent, and a collector.

At the Launceston General Hospital the board of management is composed of the mayor *ex officio*, a chairman, vice-chairman, chairman of finance committee, chairman of visiting committee, together with eight other members and a secretary. A surgeon-superintendent, working under the board, has the direct management of the institution, assisted by honorary consulting surgeons, a house steward, apothecary, and collector. There are also a lady-superintendent and a matron. Orders for admission are obtained from the members of the board, honorary consulting surgeons, the mayor, police magistrates, wardens of municipalities, and the chairman of the Benevolent Society.

Among the second class of charitable institutions, assisted by the Government, are the Campbell Town Hospital and the Provident Hospital, Waratah (Mount Bischoff). The former of these two institutions was originated by private effort, and is maintained partly by private contributions and partly by a Government subsidy. The invalid depôts at Hobart and Launceston must be enumerated amongst these charitable institutions. The latter is managed by a superintendent, clerk, resident overseer, medical officer, and a full staff of attendants and nurses.

Finally, mention must be made of the Hospital for Contagious Diseases, Cascades, near Hobart, which was founded in 1879. It is managed by a board of nine members, with a medical officer in charge, while there is an officer specially appointed to carry out the provisions of the Contagious Diseases Act. There is a similar institution at Launceston.

Appended are two tables showing the cost per head, and the cost per case, of the Tasmanian hospitals, and finally a third statement, giving in a tabular form all the most interesting particulars of these institutions, for the five years from 1885 to 1889 inclusive :—

Table showing the Cost per Head of the various Tasmanian Hospitals.

—	1885.	1886.	1887.	1888.	1889.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hospital for Contagious Diseases, Launceston	...	38 4 2	40 0 0	57 3 6	34 5 11
Hospital for Contagious Diseases, Cascades ...	117 11 9	98 1 9	69 7 10	71 3 2	72 1 0
General Hospital, Launceston ...	67 10 9	70 14 5	70 16 7	75 6 11	74 18 7
General Hospital, Hobart	90 18 0	91 12 0	90 17 6	92 0 0	93 17 3
New Norfolk Cottage Hospital ...	...	...	...	...	134 5 0
Waratah Hospital ...	...	262 15 6	287 6 8	397 5 2	134 8 0
Campbell Town Hospital	...	272 10 7	216 16 9	84 9 2	242 16 7

Table showing the Cost per Case in the various Tasmanian Hospitals.

—	1885.	1886.	1887.	1888.	1889.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New Norfolk Cottage Hospital ...	...	...	...	...	3 11 8
Hospital for Contagious Diseases, Launceston	...	7 12 10	4 15 10	5 7 2	4 7 7
General Hospital, Launceston ...	5 15 9	5 11 6	5 11 2	6 2 3	6 7 1
General Hospital, Hobart	7 5 10	6 9 1	6 11 4	6 15 0	7 19 4
Devon Cottage Hospital	...	...	...	...	9 5 3
Hospital for Contagious Diseases, Cascades ...	14 13 11	16 16 11	7 1 4	6 5 7	9 7 11
Campbell Town Hospital	7 14 9	15 11 6	11 12 9	4 16 3	14 12 6
Waratah Hospital ...	39 1 9	25 0 6	52 4 11	36 2 3	45 14 9

The above table gives the hospitals in order of cheapness per case as shown by the latest available returns, but nothing is said in the official statistics as to the cause of the considerable fluctuations in the annual rate.

Table giving the more interesting Particulars respecting the various Hospitals and Hospitals for the Insane in Tasmania.

Details.	1885.	1886.	1887.	1888.	1889.
Number of Institutions ...	7	8	8	8	10
Accommodation ...	644	650	715	674	682
Individual { In-patients ...	2,401	2,501	2,763	2,634	2,512
cases treated { Out-patients ...	3,723	3,686	2,894	2,249	5,626
In-patients treated as insane ...	429	383	401	398	409
Percentage of In-patients treated as insane to total In-patients	17·86	15·31	14·51	15·11	16·28
Persons died ...	218	226	277	398	249
Percentage of deaths to cases treated ...	9·08	9·04	10·03	15·11	9·91
Daily average in hospital ...	497	490	538	520	533
Total cost ...	£28,092	£28,177	£29,141	£27,153	£29,262
Cost per case per year ...	£11 4 9	£11 5 4	£10 10 11	£10 6 2	£11 12 1
Proportion of Government aid to total contributions ...	79·52	78·25	79·92	80·15	80·91

4. SOUTH AUSTRALIA.

HOSPITAL PROVISION.

The hospitals of South Australia may be divided broadly into two classes—those which are in the colonial surgeon's department, and those which may more properly be described as voluntary institutions. In the former class there are six hospitals—viz. Mount Gambier, Port Augusta, Port Lincoln, Wallaroo, Port Adelaide, and the Casualty Hospital, Clare, all of which are general hospitals with the exception of Clare, which is limited to casualties. There is no inspector-general of hospitals, but the colonial surgeon is the head of the department and is responsible for the management and working of these institutions.

The income is provided by an annual vote of Parliament, and increased, although to an insignificant extent, by fees and reimbursements from all patients admitted who may be in a position to pay. These hospitals are primarily intended for the use of the destitute sick, and each in-patient requires for admission an order from the representing officer of the Destitute Board or from a magistrate. The medical officer on his own authority can admit any case, and, under the regulations, is instructed to grant immediate admission to any person, whether destitute or in good circumstances, requiring prompt medical or surgical treatment.

always providing that the hospital is the only place where such treatment can be given. The total accommodation is for about 120 patients, Mount Gambier providing for forty, Port Augusta for forty, Wallaroo for thirty (although more than ten beds are rarely made up), Port Lincoln for ten beds, of which four are usually occupied, Port Adelaide for six, while Clare makes up one, or, at the outside, two beds occasionally.

EXPENDITURE.

The gross annual expenditure in none of the hospitals mentioned is more than £150 short of the annual vote. We append a summary of the expenses.

	Salaries, fixed.	Salaries, provisional and temporary.	Allowances.	Con- tingencies.	Total.
	£	£ s. d.	£	£	£ s. d.
Mount Gambier ...	418	890 0 0	26	1,800	3,134 0 0
Port Augusta ...	...	856 5 0	52	1,875	2,783 5 0
Port Lincoln ...	...	205 0 0	...	250	455 0 0
Wallaroo ...	...	703 0 0	100	1,175	1,978 0 0
Port Adelaide ...	...	104 0 0	...	225	329 0 0
Casualty Hospital, Clare ...	...	172 0 0	...	115	287 0 0

“Contingencies” include medicines and medical comforts, provisions, fuel, light, bedding, clothing, funerals, stationery, printing, postage stamps, sundries, and, at Port Augusta, water. The allowances are for forage or in lieu of quarters, rations, light, and fuel for the medical officer.

REGULATIONS FOR COUNTRY HOSPITALS.

The following is the brief code of regulations for these country hospitals, as approved by the chief secretary in 1881.

1. The hospital is for the use of the destitute sick, but paying patients may be admitted under special circumstances. Persons possessed of means and able to command attendance at their own homes are not to be received. This, however, must not be construed so as to exclude any case suddenly brought to the hospital suffering from apoplexy, severe bodily injury, or any other condition demanding prompt medical or surgical aid.

2. The admission and discharge of patients rest with the medical officer.

3. The destitution of applicants for admission has to be certified by the representing officer of the Destitute Board.

4. A magistrate or justice of the peace may recommend for admission, but the medical officer has the power to decide whether cases so recommended require hospital treatment.

5. A distinction is to be drawn between patients suffering from accidents, such as fractures, burns, &c., or acute disease, such as fever, dysentery, pneumonia, &c., and those suffering from minor ailments and chronic and incurable diseases. The former class require indoor hospital treatment, the latter may generally be treated as outdoor patients.

VOLUNTARY INSTITUTIONS.

In addition to the hospitals just enumerated there are eight other institutions of which mention must be made. First among these is the Adelaide Hospital, which was in the first instance a Government institution, constructed and maintained by annual parliamentary grants, but which has since been handed over to a committee of management, who are empowered by Act of Parliament to raise subscriptions. It is still, however, supported chiefly by Government funds. In 1887, the last year of which we have been able to obtain a report, 1,895 in-patients were admitted and there were 10,554 attendances of out-patients. The total expenditure was £9,686 13s. 11d. and the cost of each in-patient was £51 16s. 10d. Contributions amounted to £2,059 9s. 3d., and the fees for paying patients to £657 2s. 3d., thus leaving £6,970 2s. 5d. to be provided by the Government.

ADMISSION TO THE ADELAIDE HOSPITAL.

Contributors of £2 annually have the privilege of recommending one indoor patient in the year; of £5 annually, three indoor patients in the year; and donors of £10 annually have the privilege of always having one patient in the hospital. Life contributors have the same privileges in proportion, their donations being estimated as annual contributions of one-tenth. It is optional for contributors to have indoor order forms supplied in lieu of outdoor forms, at the rate of one of the former for six of the latter. Members of the board of

management and every legally qualified medical practitioner may also recommend patients for admission, but in all cases it is enjoined that these recommendations are only to be given to persons who from poverty are proper subjects for hospital treatment, and applicants have to make a declaration, on a form printed for that purpose, that they are unable to pay for medical advice, and to state whether they are entitled to medical attendance from any benefit society or lodge. With regard to fees for maintenance, the regulations prescribe that sailors and others whose means will not enable them to procure such medical attendance as their cases may require in any other way, may be admitted on payment in advance of maintenance fees for thirty days, at the rate of three shillings per day, and giving an agreement to the secretary, guaranteed by the person sending the recommendation, for the payment at the same rate for any further time it may be necessary to detain them in the hospital.

OTHER VOLUNTARY INSTITUTIONS.

Besides the Adelaide Hospital there are the Burra Hospital founded by the inhabitants of the Burra, and governed by a committee of management elected by subscribers, the Government subsidising all subscriptions, for whatever purpose raised, pound for pound; the Kapunda Hospital, and the Narracoorte Hospital, both founded and supported in the same way as Burra; the Children's Hospital, Adelaide, founded and maintained entirely by private subscriptions; the Convalescent Hospital, Saint Margaret's, Semaphore, and the Home for Incurables, Fullarton, both established by private subscriptions and subsidised pound for pound by the Government; and, lastly, the Bellair Inebriate Retreat, founded and maintained by private subscriptions and pound-for-pound Government subsidies.

Of the working of these institutions we are unable to give any details.

5. NEW ZEALAND.

There are in New Zealand thirty-eight hospitals, divided into two classes—those, namely, which are maintained wholly by the Government, and those subsidised by the Government. The former class are, generally speaking, situated at the chief centres of population, although in Canterbury district all the hospitals are so maintained; while the latter are usually in country districts, and

maintained on the system of subsidies of £1 for every £1 subscribed by the general public or by local bodies, the subsidies being paid to committees of management elected by the subscribers. There are a few exceptions to the pound-for-pound rule, the Tuapeka Hospital having had £3 for £1, and the Waipawa County and Coromandel Hospitals £2 for £1, whilst at Patea half the actual cost is refunded by Government to the local bodies who manage the hospital. The hospitals, except in Wellington, are managed by committees variously chosen. Of those maintained by Government, that at Auckland is managed by a committee, half of whom are elected by those who subscribe £306, against an expenditure of £6,575, and the other half are nominated by Government; at the Thames there is a larger committee, elected by subscribers of an almost nominal sum, and by the borough and county council, which contribute nothing, whilst none are nominated by Government; the New Plymouth Hospital is managed by a committee appointed by Government; at Napier the committee is elected by subscribers, whose subscriptions, whilst entitling the donors or their nominees to gratuitous treatment in case of illness, are expended by the committee, who render no accounts and throw the whole cost of management and maintenance on the Government, although the latter is not represented on the committee; the Nelson Hospital is managed by a committee of the city council, the Christchurch and Akaroa Hospitals by a board of management appointed by the Government; the Waimate Hospital is managed by the county council; the Timaru and Dunedin Hospitals by committees appointed by the Government; at Hokitika and Westport Hospitals the committees are elected by subscribers, two members being appointed to the committee of the former institution by the Government. All the other hospitals in the colony are conducted on the voluntary system, with Government subsidies.

THE HOSPITAL SYSTEM OF NEW ZEALAND.

The whole problem of the hospital system in New Zealand depends upon the question of outdoor relief, which is intricately involved with the general system of charitable aid. It is extremely difficult for anyone unacquainted with the daily life of the colony to gain an accurate knowledge of the working of so large a machinery as its hospitals and charitable institutions, and so we quote the facts from the able and exhaustive reports of the

inspector of hospitals in New Zealand for the years 1888 to 1890 inclusive :—

It must be borne in mind that extreme misery and squalor are not known in New Zealand as they are known in England, and the immediate consequence of this is that sensitiveness to suffering, where met with, is greatly stimulated, tending to make the well-to-do lavish to the poor and impatient of inquiry as to whether their charity is wisely or mischievously given. In 1873, there was an enormous import of a low class of navvies into the colony during the height of the public works, and the average quality of the population was thereby considerably deteriorated. By an idle and vicious class the outdoor relief that was meant for the self-respecting, struggling poor was promptly absorbed, and the evil is a never-ending one, because the low standard of morality, the impaired health, and the insanity of this class descend to their offspring and constitute a continual drain on the community. While admitting, as everyone admits, that a wholesale system of outdoor relief means a dangerous and unhealthy process of pauperisation, the people of New Zealand have found themselves face to face with a problem that well-nigh staggers them. Their circumstances had stimulated their good-nature to an unnatural degree, and they are in the midst of reaction. What it comes to is this—they have assented to the idea that they are their brothers' keepers, and have suddenly awakened to the fact that their family is infinitely larger than they had fondly supposed. So long as the central Government found the money, men, women, and children were encouraged to believe that they might eat without working, and, as the inspector observes, "we mortals have the capacity to consume the solar system on such terms." As at present conducted, the system of outdoor relief violates first principles in two ways—it breaks the first law, of nature, that unless a man works he shall not eat, which is nature's provision for mere being or existence ; and it disobeys the second law, of human society—"love thy neighbour as thyself," which is nature's provision for well-being or happiness. It is an attempt to separate cause from effect, and must fail ; a device by which a general tax is made to relieve people of a duty laid upon them individually.

To replace the existing system the inspector makes the following suggestions : Assuming that in a civilised community no one must be allowed to starve, however degraded, improvident, or vicious he may be, the State must, without regard to desert, provide bare sub-

sistence and no more, under a rigid workhouse test, whose principle must be that no State pauper can be better treated than the poorest of the people who are taxed to support him ; workhouses managed under the most stringent provisions being provided in or near each centre of population for this class.

Adequate relief, based on a thorough knowledge of the circumstances, should be provided for old people who have no friends and have become dependent upon charity through no fault of their own ; for widows with young children, each case being treated on its merits ; for cases of temporary lack of employment, or sickness and convalescents. These, he thinks, should be taken in hand by a charity organisation society in each centre.

In cases where poverty and suffering are caused by the immorality and misconduct of the breadwinner, as, for instance, in the families of drunkards or brutal and neglectful husbands, the most constant and vigilant supervision is required during the time they are in receipt of aid, and nothing but a voluntary organisation of charitable persons can possibly cope with the difficulties these cases present. He concludes : " It is not yet too late to stamp out the pauper class that has risen among us owing to our own apathetic folly in dealing with it. The State cannot do this, but I am certain that a charity organisation society in each of our large centres can do it if it be taken in hand now. How far such a society ought to be subsidised, and from what sources, is a matter of public policy."

The central difficulty of the whole hospital system lies in the fact that it raises the vexed question of town *versus* country ; the whole tendency of industrial organisation is to make the towns too attractive as compared with the country, and the off-scourings of society invariably drift into the large towns. Another great difficulty that must be got over is that at present the taxpayers of the large towns, where charity is lavishly dispensed, cannot be induced to check the wholesale pauperisation that is going on. This, as will be inferred from what we have already said, the inspector of hospitals considers to be the key to the situation ; if only the people in the colony would combine to stamp out professional pauperism, much of the present difficulty would disappear. In Ontario the difficulty between town and country is got over by State payments of 20 cents a day for each *bonâ-fide* hospital case treated, and payments of 7 cents a day for chronic cases unsuitable for hospital patients. To meet the case of small hospitals where this rate of payment would not be sufficient, a supplementary allowance

is made of not more than one-fourth of the revenue from all local sources. For benevolent homes or refuges for indoor poor the rate of payment by the State is 5 cents per head per day, with a supplementary aid of 2 cents per day. All other cost of caring for paupers, whether in refuges or hospitals, is borne by the local bodies. This system is suggested as being perhaps the most practicable for New Zealand.

There is another grave obstacle in the way of reformation of the government of the hospitals and charitable institutions. Local government has been carried to such an extent, there are such an enormous number of municipalities, county councils, and boards of every description, that a state of administrative paralysis has been brought about through the impossibility of co-ordinating their functions. Another evil result of this is that the bulk of the work is carried on by their officers, who are altogether underpaid because of their numbers, and whose efficiency is in proportion to their pay. Until some consolidating Local Government Bill is passed by Parliament, it will be practically impossible to mend matters in this respect. City councils are at war with the many municipalities in the neighbourhood, whilst the latter, again, are all at war with each other, and we all know that a house divided against itself cannot stand.

One of the chief aims of the existing Act was to leave nothing undone to encourage the voluntary contributions for charitable purposes that so honourably distinguished some districts of the colony; but here, too, the springs of charity were dried up by the Poor Law. Among other inducements held out by the Act for this purpose, voluntary subscribers were permitted to select a large proportion of the members of the board, but the results were not found to be satisfactory. So endless were the elections to the numerous local bodies that the people never troubled to attend unless some burning question was mooted, and even in large towns it has happened that the trustees to the hospitals have been elected by less than half a dozen persons outside the candidates themselves. Under these circumstances the inspector whom we have taken as our authority on these points is of opinion that, except in places where one-fourth of the expenditure comes from local sources, the powers at present given to voluntary subscribers ought, as a broad rule, to be withdrawn.

Obviously the whole position is full of difficulties, but from the above statement of some of them, showing, in truth, an unsatis-

factory condition of things in the present, one satisfactory inference may be drawn, and that is that the authorities, being wide awake to the deficiencies of their own charitable system, and sufficiently anxious to supplement them when they have gained an accurate knowledge of the disease and its treatment, are likely before long to restore health to the whole of their social body, which has been so sadly deteriorated by lavish and indiscriminating almsgiving.

WORK OF THE NEW ZEALAND HOSPITALS.

In the opposite table all the more important features are shown of the work done by the hospitals of New Zealand during the year ending March 31, 1890. It will be found to contain the movement of the population, the total collective and individual average days' stay, the daily average cost per patient, the percentage of cost of administration on total expenditure, and the work of the out-patient department.

RECEIPTS.

The total receipts of all the hospitals for the year ended March 31, 1890, were £79,522 8s. 9d. Of this sum Government contributed £29,543 13s. 6d., hospital boards and local authorities provided £24,788 16s. 4d., voluntary contributions produced £5,371 8s. 10d., and patients' payments amounted to £7,712 9s. 6d.; the balance from the previous financial year was £7,214 12s. 8d., rents produced £2,878 15s. 3d., bequests £1,047 19s. 11d., and £964 12s. 9d. was derived from "other sources."

EXPENDITURE.

The total expenditure on account of these institutions during the same period was £69,686 8s. The largest items are as follow : Provisions, £16,191 10s.; salaries and wages, £25,275 16s. 4d.; surgery and dispensary, £5,884 7s.; repairs, £2,920 13s. 1d.; furniture, crockery, &c., £1,683 0s. 11d.; bedding and clothing, £1,618 10s. 3d.; and fuel and light, £4,374 14s. 7d. There was thus a balance of £9,836 0s. 9d. to be carried forward into the next financial year.

Table showing Admissions, Discharges, &c., of Patients at all the Hospitals of New Zealand for the year ended March 31, 1890.

Hospitals.	No. of Patients admitted on March 31, 1889.	Patients under treatment during Year.			Discharged.	Deaths.	No. remaining on March 31, 1890.	Total Collective Stay in Hospital.	Individual Average Days Stay.	Daily Average Cost per Patient.	Percentage of Out-patients.	Number of Individual Cases.
		Males.	Females.	Total.								
Akaroa ..	1	14	3	17	15	1	1	641	37.70	s. d.	49.66	.. 4
Ashburton ..	7	60	20	80	71	8	1	1,900	23.75	8 11	53.84	.. 4
Auckland ..	10	121	21	142	121	6	1	3,514	35.14	10 11	53.84	.. 4
Blenheim ..	115	718	329	1,047	828	89	112	30,567	34.92	3 51	20.03	1,177
Christchurch ..	9	97	12	109	80	9	5	6,523	59.82	4 31	18.57	.. 3,881
Coromandel ..	65	34	..	34	28	1	5	1,025	55.62	5 41	45.94	13
Dunedin ..	8	647	287	934	777	66	91	33,429	36.79	4 31	34.89	410
Gorea ..	3	15	..	15	13	2	..	400	33.26	22 4	72.00	16
Gorea ..	12	15	..	15	13	2	..	718	12.82	20 91	5.14	.. 48
Gorea ..	54	44	12	56	54	2	..	35,180	34.82	3 9	31.54	.. 1,769
Gorea ..	913	612	384	1,010	819	96	101	2,955	37.53	7 01	59.32	.. 20
Gorea ..	6	13	..	13	12	3	2	2,825	37.53	3 9	31.54	.. 33
Gorea ..	76	64	12	76	64	12	6	14,801	97.32	3 51	45.94	.. 378
Gorea ..	124	135	18	153	96	17	40	14,801	97.32	3 51	45.94	.. 378
Gorea ..	22	22	2	24	21	2	1	11,596	47.91	11 10	54.00	.. 922
Gorea ..	43	199	51	250	168	22	22	11,596	47.91	4 51	48.17	.. 323
Gorea ..	21	123	38	161	122	15	24	6,848	42.50	5 11	42.81	.. 841
Gorea ..	7	51	7	58	51	4	3	3,998	68.93	4 51	51.62	.. 27
Gorea ..	107	74	41	115	99	4	12	4,183	36.37	4 9	38.31	.. 59
Gorea ..	46	41	6	47	36	4	7	1,496	32.00	6 81	40.70	.. 103
Gorea ..	24	23	..	23	23	..	23	7,301	27.70	5 0	43.68	.. 447
Gorea ..	70	50	20	70	63	7	11	2,825	37.53	3 9	31.54	.. 33
Gorea ..	22	94	69	163	119	80	12	7,361	61.00	15 11	40.76	.. 544
Gorea ..	13	101	84	185	114	91	16	3,320	20.12	6 71	37.52	.. 2,992
Gorea ..	11	104	90	194	115	95	8	3,903	33.75	4 21	52.30	.. 70
Gorea ..	6	26	28	54	32	27	2	1,109	34.66	6 2	51.17	.. 5
Gorea ..	5	48	7	55	42	4	9	3,643	66.25	3 6	39.56	.. 3
Gorea ..	8	77	4	81	77	4	7	2,784	26.77	7 31	41.87	.. 69
Gorea ..	115	115	95	210	177	17	17	3,090	32.70	6 13	44.58	.. 526
Gorea ..	4	118	7	125	88	17	12	3,859	48.52	5 0	47.53	.. 127
Gorea ..	11	61	23	84	59	12	8	4,396	30.71	18 81	31.82	.. 559
Gorea ..	28	24	..	24	23	1	13	4,161	34.83	4 91	36.61	.. 323
Gorea ..	15	131	108	239	172	17	26	3,482	29.06	7 4	47.84	.. 30
Gorea ..	24	239	172	411	263	9	11	3,482	29.06	6 6	49.00	.. 123
Gorea ..	7	110	98	208	117	93	9	6,000	30.00	4 81	39.80	.. 4
Gorea ..	11	102	69	171	113	93	9	3,482	29.06	6 6	49.00	.. 123
Gorea ..	17	183	175	358	200	170	12	6,000	30.00	2 111	38.53	.. 45
Gorea ..	20	149	159	308	135	11	18	9,762	57.76	2 111	38.53	.. 115
Gorea ..	108	84	300	947	733	58	130	39,721	41.94	3 9	43.22	.. 4,095
Gorea ..	8	57	5	62	43	6	13	1,951	31.47	10 1	48.22	.. 47
Totals ..	772	6,749	2,075	7,521	6,103	581	837	285,733	..	..	..	9,464

* Cost of administration includes all salaries and wages; also office expenses.

6. QUEENSLAND.

We have been able to obtain practically no information from Queensland upon our subject, and, indeed, it appears that the only large hospital department in the colony belongs to the Benevolent Institution at Dunwich, and hardly falls under the category of institutions with which we have mainly to do. There are, however, some institutions established by a special Act of which mention must be made.

PACIFIC ISLAND LABOURERS ACT OF 1880.

This Act was passed to secure proper provision and treatment for labourers when sick. Districts were proclaimed from time to time in which hospitals for Pacific Islanders should be established, and on this proclamation every employer was obliged to contribute in advance a hospital capitation fee at the rate of 10s. per annum for every labourer in his employment. By an Amendment Act of 1885 this hospital capitation fee was increased to £1. A resident surgeon was appointed to each hospital, and every employer was entitled to send his sick labourers to it, failure to do so being punishable by fine.

In 1888 there were four of these hospitals—viz. Maryborough, Mackay, Ingham, and Johnstone, the first three of which had their actual expenses paid by the Pacific Islanders' Fund, while in the last case a contribution proportionate to the number of Islanders treated was made to the whole expenditure of the general hospital, in connection with which it was worked, in addition to specific sums granted towards the salaries of the medical and other officers, and for buildings and furniture.

The following table shows the financial operations of these four institutions during 1888 :—

—	Maryborough.	Mackay.	Ingham.	Johnstone.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
True expenditure	1,350 9 0	2,901 6 3	1,104 5 6	1,276 10 3	6,632 11 0
Revenue	924 5 0	2,838 6 0	712 3 6	557 10 0	5,032 4 6
Debit ...	426 4 0	63 0 3	392 2 0	719 0 3	1,600 6 6

The next table shows the daily average of patients in these hospitals, the cost per diem, and the rate per head on Islanders in the district:—

—	Maryborough.	Mackay.	Ingham.	Johnstone.
Daily average of patients ...	25'55	64'34	20'57	24'45
Cost per diem ...	£ s. d. 0 2 10 ³ / ₄	£ s. d. 0 2 5 ³ / ₈	£ s. d. 0 2 11 ¹ / ₄	£ s. d. 0 2 1 ¹ / ₂
Rate per head on Islanders in the district ...	1 19 0	1 7 4 ¹ / ₂	1 12 7	1 16 0 ³ / ₄

The officer in charge at that time urged that the Maryborough, Ingham, and Johnstone institutions should be closed, and that employers should be compelled to resume liability for the care of their sick Islanders, as in the case of non-hospital districts. He argued that in none of these three districts were there sufficient Islanders employed to warrant the expense of a special establishment; that, in addition to the accumulated deficit, the yearly deficiency in each case was serious; that the statutory fee of £1 yearly was inadequate to sustain the institutions, as Maryborough would require £1 19s., Ingham £1 12s., and Johnstone £1 16s. 0³/₄d., and, moreover, the Islanders employed in the Maryborough district at that time were so few in number that the salary of the medical officer would more than absorb all the fees collected, leaving nothing from which to defray the many expenses of maintenance; that any longer to allow the Islanders of three districts to be so serious a charge upon the funds of the trust to which all districts contributed was not equitable towards those employers who had to care for their sick Islanders; that the number of new introductions to these three districts afforded no guarantee that the institutions would become self-supporting; and, finally, that in the Bundaberg district, which contained the largest number of Islanders, there was no special hospital for Polynesians, and yet that there was no reason for supposing that the health of the men was neglected.

These arguments appear to have been conclusive, for the Maryborough Hospital was closed at December 31, 1888, and that of Mackay at December 31, 1889. Those at Ingham and Geraldton (Johnstone) were, however, continued on probation to the end of 1890. From the last report of the Pacific Island Immigration Department we learn that the receipts of these institutions amounted to £4,239 13s. 6d., made up thus:—

Hospitals.	Capitation Fees.	Treatment Charges.	Total.
	£ s. d.	£ s. d.	£ s. d.
Maryborough	* 191 18 2	0 9 0	192 7 2
Mackay	2,171 10 0	44 9 4	2,215 19 4
Ingham	1,133 10 0	2 17 0	1,136 7 0
Johnstone	695 0 0	...	695 0 0
Total	4,191 18 2	47 15 4	4,239 13 6

* This consisted of realisation of assets, the hospital having already been closed.

On the other hand, the expenditure amounted to £3,826 4s. 4d., distributed among the four hospitals thus :—

Items.	Maryborough.	Mackay.	Ingham.	Johnstone.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Salaries and wages ...	...	999 3 5	394 14 4	250 10 7
General expenses ...	110 1 10	1,065 16 6	538 9 6	467 8 2
Total	110 1 10	2,064 19 11	933 3 10	717 18 9

A comparison of these two tables shows that the receipts exceeded the amounts charged to the account by £413 9s. 2d.,—being the first time this has occurred in the history of these institutions. At Maryborough the excess was £82 5s. 4d., at Mackay £150 19s. 5d., and at Ingham £203 3s. 2d., while at Geraldton (Johnstone) there was a deficiency of £22 18s. 9d. In the case of the last three, however, there were considerable items to come to debit on account of the year's transactions when the account was closed on December 31, which would quite absorb the balance shown, the debits being £7,141 2s. 5d. at Maryborough, £10,721 5s. 3d. at Mackay, £1,305 8s. 11d. at Ingham, and £1,483 13s. 7d. at Geraldton (Johnstone).

7. CEYLON.

The hospitals in Ceylon are broadly to be divided into two classes—(1) the civil hospitals, which were founded and are supported entirely by the Government ; and (2) the district hospitals, which were established under the Medical Aid Ordinance of 1872 in the planting districts. Originally these hospitals were under the management of the resident planters, and supported by an average

assessment levied under the ordinance ; but in January 1883 they were taken over by the Government, and are now supported by an export duty on coffee, tea, and so on, and are under the same supervision as the other civil hospitals. The general inspection is carried on by the principal civil medical officer, four colonial surgeons, one senior medical officer, and three superintending medical officers, whose duties are prescribed in the regulations.

ADMISSION OF PATIENTS.

Patients of all classes are admitted into the General Hospital, Colombo, for indoor treatment. The poorer classes are admitted free, as also are all cases brought in the police-cart with tickets from the different police-stations. Police-constables are charged 25 cents a day for food. Those who can afford it are charged 50 cents a day in the General Hospital, and 1 rupee 50 cents a day in the Seamen's Hospital, with a guinea as entrance fee. Out-patients receive treatment after 9 A.M. when the outdoor dispensary is closed.

MEDICAL COLLEGE.

Attached to the General Hospital, Colombo, is the Ceylon Medical School, which was established in 1870 by Sir Hercules Robinson, the Governor of the island at that time, and which was then known as the Colombo Medical School. In 1880 it was raised to the dignity of a college by Sir John Douglas, K.C.M.G., and its present standard is almost as high as that of the provincial schools in Great Britain. The principal and lecturers are selected, as a rule, from the officers of the civil medical department by the principal civil medical officer, their appointments being sanctioned by Government. Clinical lectures are delivered by the hospital physician once a week upon some suitable case or cases for the time being under his treatment. In close proximity to the medical wards is the hospital laboratory, which is under the physician's charge. Here the physician conducts all chemical and microscopic examinations in the presence of his clinical clerks. The lecturer on surgery is *ex officio* surgeon to the hospital, visiting the surgical wards with the dressers every morning, and delivering a clinical lecture to the students once a week. All operations that can be postponed are performed in the operating theatre of the hospital every Friday morning, and are witnessed by all the students. The pharmacy of

the hospital is in charge of the apothecary, who superintends all the students attending that department. There is a carefully regulated scheme to insure that all students shall undergo an exhaustive practical training in the hospital before obtaining their license to practise in Ceylon. At the outdoor dispensary in connection with the hospital the senior students are permitted to examine and prescribe under the direction of the medical officer in charge.

The demonstrator of anatomy acts also as registrar and pathologist to the hospital, and curator of the museum. He has to be present at the autopsy of every case, and enters up the appearances met with in a book specially prepared for the purpose. He further takes charge of and carefully preserves every morbid specimen which may serve to illustrate the subject of pathology.

SANITARY ARRANGEMENTS.

The dry-earth system of latrines is in use throughout the colony, and apparently answers well. At the General Hospital, Colombo, the latrines and bath-rooms number about eight to each ward, distant thirty feet from them, and are entered by a covered way. Portable urinals for night use are constructed on the verandahs of each ward. In the latrines the excreta are collected in galvanised-iron buckets with a liberal supply of fine dry earth, sawdust, and disinfecting powder, and are carted away every night by the latrine coolies and buried some two miles from the hospital. There is an unlimited water supply from four wells, conducted through iron pipes to two filters away from the wards. A patent force-pump is attached to the principal well, and all water is filtered before use. There are no sewers, but there are open cemented drains for surface water only.

Ventilation is secured in the General Hospital by the lofty unceiled wards, and a free current of air also circulates below on the floor level by means of guarded openings fifteen inches square. The wards have walls only six feet high, with large open spaces between the walls and the wall-plate above. In wet weather and at night, closely woven bamboo tats are let down, and provide sufficient shelter.

8. STRAITS SETTLEMENTS.

ADMISSION TO GENERAL HOSPITALS.

All admissions into the general hospitals are governed by the following regulations: (1) *Seamen and officers of ships* must produce orders from agents of ships, commanders of vessels, or the master-attendant. (2) *Police cases* must produce orders from an inspector of police. (3) *Police peons, and members of the police force*, are admitted on certificate from a responsible officer of police. (4) *Native servants* can only be admitted under letters guaranteeing payment by their employers. (5) *Europeans in distressed circumstances*, and who may be unable to pay the hospital charges, will only be admitted under an order from the inspector-general or superintendent of police, the order bearing a certificate to the effect that the person is in destitute circumstances. (6) *A private individual* will have to produce an order from the manager of the firm in which he is employed or furnish the hospital authorities with satisfactory reference for the payment of his hospital bills, or make a deposit of at least fourteen days' charge. Any balance there may be to the credit of any patient, if he be discharged before the expiration of that period, will be refunded, and a bill given to him for the amount claimed. Should it, however, be necessary for him to remain longer under treatment, he must make a fresh deposit, or if unable to do so a fresh order for his admission from the inspector-general of police must be applied for by the patient himself, or by the colonial surgeon, as in Class 5. (7) *Native paupers* are on no account to be admitted to the general hospitals, but should be directed to go to the pauper hospitals. (8) *A Government clerk when admitted into hospital* must produce a letter from the head of his department to the colonial surgeon, stating the rate of his salary. (9) *Foreigners not seamen* will have to produce either orders from the consul of their nation, or, if admitted under an order from the inspector-general or superintendent of police under Class 5, the colonial surgeon will communicate the fact of such admission to the consul without delay.

These regulations are not to be taken as preventing those on duty in the hospital from at once admitting any case requiring immediate treatment.

OUTDOOR DISPENSARIES.

Every out-patient Government dispensary has a signboard affixed to it, on which is inscribed, in English and in the native languages, its name, and the hours of its opening and closing. Paupers known as such are entitled to gratuitous medical aid, but all others must contribute a small sum of 50 cents as entrance fee, which goes towards the maintenance of the institution, and must make a further payment of 15 cents on each subsequent visit. The members of families of Government employés who are in receipt of salaries of \$360 per annum and less are entitled to advice and medicine on payment of the nominal charges just quoted. The medical officer in charge may at his discretion dismiss applicants whom he does not consider to belong to the classes for whose benefit these institutions are opened, but he is obliged to make a note of his refusal to give medical relief. All cases of accidents requiring operative interference, and such others as are not likely to be benefited by outdoor treatment, are sent to the general or pauper hospitals for treatment, as the medical officer in charge thinks fit, and with the patient's consent. The funds collected at each dispensary are kept in the custody of the apothecary in charge, who forwards the week's collections every Thursday, or earlier if necessary, to the collector of hospital bills for payment into the treasury. Monthly and annual returns are submitted to the principal civil medical officer on one approved form so as to facilitate reference.

PATIENTS TREATED.

The following table shows the number of patients treated in all the hospitals of the Straits Settlements, and the mortality, during 1889:—

			Singapore.		Penang and the Dindings.		Province Wellesley.	Malacca.	Total.	
			Euro-peans.	Natives.	Euro-peans.	Natives.	Natives.	Natives.	Euro-peans.	Natives.
Treated	...	...	791	8,620	239	5,617	2,261	3,928	1,030	20,426
Died...	...	...	36	879	15	485	324	609	51	2,297

From the preceding table it appears that the total number of cases treated in all the hospitals of the Straits Settlements during 1889 was 21,456, of whom 1,030 were Europeans and 20,426 natives. The number treated during 1888 was 868 Europeans and 17,245 natives. The number of deaths in 1889 was 51 Europeans and 2,297 natives, total 2,348. The percentage of deaths to total treated was : Europeans 4·95, natives 11·24, against 3·57 and 10·48 respectively in the previous year. Taking Europeans and natives together, the percentage was 11·2, against 10·1 in 1888.

i. SINGAPORE.

The hospital institutions in Singapore consist of the General Hospital, Prison Hospital, Pauper or Tan Tock Seng's Hospital, Leper Hospital, and Maternity Hospital. Taking the reports of these institutions separately, we have obtained the following information :—

(a) *The General Hospital.*

A proposition has been made to open a medical school in Singapore, and in the annual medical report on this institution special attention is drawn to the facilities it affords for the study of medicine and surgery. As regards medical cases, patients are admitted into the European wards, generally from on board ships, suffering from diseases not so common in the East as in Europe, such as various affections of the heart, respiratory organs, nervous system, and kidneys ; and patients are also admitted from Singapore and neighbouring places, or from China, suffering from diseases more frequently met with in the East, such as remittent and intermittent fevers, dysentery and diarrhoea in all their acute and chronic forms, and diseases of the liver and spleen. In the native wards special Eastern diseases of the above nature are also constantly to be seen, and also various diseases of the skin.

As regards surgical cases, the European wards show a good number and variety, but it is in the native wards that the great field for surgery is found. Fractures of all kinds are met with, and occasionally dislocations ; wounds of all kinds are constantly being admitted, gun-shot wounds, and wounds of all degrees of severity, made by knives, spears, parangs, hatchets, and sticks ; accidents of all varieties are also being constantly sent to hospital, including machinery accidents from the docks or from on board ship. Surgical diseases are not uncommonly met with of ordinary

nature, such as diseases of bones, urinary organs, and tumours, as well as of those peculiar to the East, such as elephantiasis.

In the European ward 636 cases were treated during 1889. Of these, twenty-seven remained in the institution from 1888, and 609 were admitted during 1889. As to result of treatment, 571 were discharged, one was transferred to the Lunatic Asylum, three absconded, thirty-three died, and twenty-eight remained in hospital at the end of the year.

In the general native ward twenty-three cases remained from 1888, and 1,316 were admitted during 1889, giving a total of 1,339 cases under treatment. Of these, 1,099 were discharged, 102 were transferred (in most cases to the Lunatic Asylum), fifty-six absconded, fifty-six died, and twenty-six remained under treatment at the end of the year.

In the police ward 913 cases were treated during the year, with only one death, as against 858 with five deaths, in 1888.

(b) *The Prison Hospital.*

Admissions numbered 695 in 1889, as against 600 in 1888; the total number treated was 717, of whom 32 were Europeans. Of the latter none died, while 26 deaths occurred among the natives, the percentage of mortality to the total treated being only 3·48, as against 4·09 in 1888, after excluding the cholera mortality.

(c) *The Pauper Hospital.*

This institution is in the charge of a colonial surgeon, and is managed by a committee composed of the colonial secretary, the principal civil medical officer, the inspector-general of police, the assistant colonial secretary, the protector of Chinese, and six other gentlemen. Disregarding investments and repayments, the actual receipts amounted to \$27,620·78, and the actual payments to \$28,245·79, or, corrected for arrears, receipts \$27,057·78, payments \$28,256·57—an excess of expenditure over income of about \$1,200.

There was such a large and progressive increase in the number of patients that it became obvious that the Government grant for hospital expenses would be insufficient, and the committee accordingly applied for an increase, with the result that the grant increased by \$2,300 was put upon the colonial estimates for 1890. At the same time the committee drew attention to the number of European patients admitted, in spite of the fact that there is no

special accommodation for them, and they further announced their determination to decline to admit cases of venereal disease, except in extreme cases, after the 31st of March, 1890, if the pressure upon the hospital space and the excess of expenditure over available funds continued to be so heavy. The following passage from the secretary's report should be quoted verbatim :—

“The committee came to this resolution with extreme regret, in view of the fact that, in the whole of the Settlement, this is the only hospital open to the poor. They were, however, of opinion that the increase in the number of venereal cases was the result, clearly foreseen by those best able to judge, of the repeal of the compulsory clauses of the Contagious Diseases Ordinance ; and they felt the more justified in adopting the above course as they were aware that such repeal had been forced upon the colony against its will by the Home Government, in obedience to the wishes of the House of Commons, and they considered that the expense attendant upon the unhappy results would be more fairly met by the British taxpayers represented by that Honourable House than by such a charity as Tan Tock Seng's Hospital.”

The vast majority of the patients treated were Chinese, but besides Europeans, the nationalities represented were Arabs, Bengalese, Dyaks, Eurasians, Goanese, Japanese, Javanese, Klings, Malays, Persians, Siamese, and Singhalese.

The following was the actual work performed : 433 cases remained from 1888, and 5,116 were admitted during 1889, giving a total under treatment of 5,549. Of these, 4,011 were discharged, 3 were transferred, 254 absconded, and 762 died, leaving 519 under treatment at the end of the year. The average daily number of sick was 508·48, and the mortality 13·73 per cent., as against a percentage of 12·97 deaths on 5,032 cases treated in 1888.

(d) *The Maternity Hospital.*

This institution was opened in October 1888, but the first case was not admitted until January 2nd, 1889, and only ten other cases were admitted during the year. Of these, ten were discharged well, and one remained in hospital at the end of the year. The hospital was occupied on 182 days. Of the eleven cases treated, eight were paying patients—i.e. private persons and wives of Government servants, drawing salaries of more than \$30 a month—while three were free patients—i.e. paupers and wives of Government servants drawing salaries of \$30 or less a month.

ii. PENANG AND THE DINDINGS.

The accommodation for the sick of Penang is found at the General Hospital, the Prison Hospital, the Pauper Hospital, and the Balik Pulau Hospital.

At the General Hospital the total number of cases treated in the European ward was 239, of whom fifteen died, the death rate thus being 62·7 *per mille*. In the native ward 702 cases were treated, with thirty deaths, or a mortality rate of 42·7 *per mille*. There were also 305 native police cases treated, three of whom died. The total number of admissions to the whole institution was 1,213, or fifty-eight less than in 1888, and the deaths numbered forty-eight, or 38·5 *per mille*.

In the Prison Hospital sixty-one cases were treated, with six deaths. The following extract from the doctor's report is instructive: "The death rate has been high, but I fail to see how this can be otherwise, if magistrates award sentences of imprisonment to men in a dying state, which is frequently the case. It occurs to me that possibly in some of these cases, especially amongst Chinese of an indigent class, some bribing takes place. In such cases the future prisoner allows judgment to go against him for pecuniary reasons, and willingly goes to gaol to end his days, and the really guilty parties escape. One well-marked case occurred during the last three months, in which I think the man sentenced was a mere passive agent. I consider before sentence is passed in such cases, the services of a medical officer should be requisitioned, in order that the magistrate might form an opinion as to whether the health of the delinquent was such as rendered him capable of the offence imputed to him." Of the accommodation we find no mention beyond the fact that on the female side it is wholly inadequate, and that new prison accommodation for twenty females should be included in the estimates for 1891, the building to be designed with a view of subsequent extension when required.

At the Pauper Hospital 403 cases remained from 1888 and 3,341 were admitted during 1889, the total under treatment during the year being thus 3,744. Of these, 381 died, giving a percentage of 10·18 deaths to total treated, the lowest percentage for some years.

At the Balik Pulau Hospital 573 cases were treated during 1889, of whom fifty died, giving a death rate of 8·72 per cent. There were also 359 out-patients.

At the Pangkor Hospital, the Dindings, 179 cases were treated during 1889, of whom eleven died. The mortality is high because the Chinese only think of going to the hospital when they are in the last stages of disease, and when treatment proves of little avail.

iii. PROVINCE WELLESLEY.

The following table shows briefly the work done in the hospitals of Province Wellesley during 1889:—

Hospital.	Total Number Treated.	Died.	Average Daily Number of Sick.	Percentage of Deaths to Total treated.
Butterworth ...	1,316	142	37'37	12'5
Bukit Minyak ...	287	31	14'46	10'8
Sungei Bakap ...	558	51	37'02	9'13

iv. MALACCA.

The total number of patients treated in the General and Pauper Hospitals of Malacca was 3,905 in 1889, as against 2,685 in the previous year. At the General Hospital 454 were treated, and of these 423 were discharged, six absconded, nineteen died, and six were left under treatment at the end of the year. The average daily number of sick was 9'26, and the mortality rate was 4'18 per cent.

At the Pauper Hospital 208 patients were left from 1888, and 3,243 were admitted during 1889. This is the highest number of admissions in one year since the foundation of the institution. The influx of patients was so great between March and May that accommodation for seventy-six new patients had to be provided. Of the 3,451 patients under treatment during 1889, 2,577 were discharged, 27 absconded, 590 died, and 257 remained in hospital at the end of the year. The average daily number of sick was 27'486, and the percentage of deaths to total treated was 17'07—a rate which the acting colonial surgeon does not think very high “considering the nature of cases drafted into the hospital from the neighbouring States, and sent in here, not for treatment, but to die.”

At the Prison Hospital twenty-three cases were treated and discharged: no death occurred.

OUTDOOR DISPENSARIES.

In addition to the hospitals enumerated above, there are outdoor dispensaries in Singapore, Penang, and Malacca.

The following is a statement of the work done during 1889 :—

—	Singapore.	Penang.	Malacca.
Number of patients	3,026	2,982	1,503
" " visits	8,743	4,095	2,530
" " paying patients ...	2,447	1,512	...
" " patients treated free...	507	1,025	...
" " municipal servants ...	72	445	...
" " males	2,659	2,110	...
" " females	367	872	...
Average daily attendance ...	29'44	13'08	...
Amount collected	\$742'50	\$305'40	\$93'40
Amount found by municipality ...	\$100'00	...	...

9. MAURITIUS.

CIVIL HOSPITAL.

On December 31, 1888, 118 patients remained under treatment in the Civil Hospital, and during the year 1889, 4,879 cases were admitted, making a total of 4,997 cases treated during the year. Of these, 4,555 were discharged, 307 died, and 135 remained on December 31, 1889. Whereas the number of European patients is smaller than it was in 1887, the number of Creole and Indian patients is considerably larger. In the case of the Creoles this is due partly to increased confidence in hospital treatment, and partly to the rapid spread of pauperism among them. In the case of the Indians, the increase is partly to be attributed to the admission of new immigrants into Mauritius, but mainly to the fact that they work as day-labourers without any contract of engagement, and so when sick become a burden upon the Poor Law Commission, and are sent through the Immigration Department as pauper patients. Of the total 4,879 cases admitted in 1889, 2,442, or fifty per cent., were pauper cases. The daily average of patients was 174, as against 171 in 1888.

Mortality.

There were 307 deaths in the year, giving a rate per thousand of 61·4, as compared with 76·6 the year before. Of the whole number of deaths no fewer than 124, or more than one-third, took place within forty-eight hours. In the 124 cases are included 106 paupers, thus proving that this class of patients reaches the hospital when it is too late even to relieve them.

Finance.

Table showing the Revenue and Expenditure of the Mauritius Civil Hospital in 1887-8-9.

Year.	Daily Ave age Number	Total Amount expended.	Average Annual Cost of each Patient.	Amount recovered from Private Patients.	Amount charged for Treatment of Paupers.	Average Daily Cost of each Patient.
		Rs.	Rs.	Rs.	Rs.	Rs.
1887	157	85,799.89	546.49	15,867.12	30,374.96	1'50
1888	171	83,355.63	487.46	13,711.16	37,189.79	1'33
1889	174	93,472.85	546.62	17,659.44	32,073.42	1'50

The increased expenditure is attributed principally to the repairs required for the apparatus by which the hospital is provided with electric light, and to a free use of stimulants and extras for the debilitated, semi-starving paupers who are admitted.

The following table shows the expenditure for the year 1889, analysed :—

Analysis of Expenditure at the Mauritius Civil Hospital during 1889.

	Rs.
Salaries fixed	13,080.00
Salaries (provisional and temporary)	13,513.77
Medicines, surgical appliances, &c.	6,749.66
Implements, utensils, furniture, and petty stores	1,798.24
Clothing and bedding	9,493.94
Provisions, fuel, and oil	42,202.36
Lighting and repairs	4,270.88
Repairs and maintenance of buildings	2,000.00
Conveyance of dead	230.00
Stationery	134.00
Total	93,472.85

ESTATE HOSPITALS.

These institutions are managed according to an article of the Labour Ordinance of the Colony. They are 125 in number, distributed over eight districts, thus :—

District.					Number of Hospitals.
Pamplemousses	...	...	...	...	14
Rivière du Rempart	...	...	...	...	13
Flacq	...	...	...	...	27
Grand Port	...	...	...	...	22
Savanne	...	...	...	...	19
Black River	...	...	...	...	8
Plaines Wilhelms	...	...	...	...	9
Moka	...	...	...	...	13
Total					125

The hospitals are inspected twice annually by the medical officer to the Immigration Department, who submits his half-yearly report to the Protector of Immigrants, by whom it is forwarded to the Governor.





CHAPTER XVII.

AUSTRIA.

HOSPITAL ACCOMMODATION.

HOSPITALS are general throughout Austria, and, although the number is not adequate to the requirements of the population at present, the rapid growth of these institutions promises that the deficiency will be overcome at no very distant date. In 1887 eleven new hospitals were established, providing 681 beds over the number existing in previous years. The number of in-patients had increased by 6,001 during the previous year. The average proportion of beds to population in Austria is about 1 to 663, but the distribution throughout the provinces is very unequal. Of the towns, Trieste, with 1 bed to every 119 of the inhabitants, shows the best provision. Of the 568 hospitals in Austria in 1887, 391 were public and 177 private institutions. The public institutions are under State or municipal control. Of the private hospitals fifty-two belong to religious communities, whilst a considerable number of the remainder are connected with manufactories and works, and constitute a special feature in the hospital system of Austria. Unlike England in this respect, there are in Austria very few hospitals which have been the direct outcome of private charity.

The 568 hospitals existing in Austria in 1887 contained 33,168 beds, and received 300,422 patients during the year. The expenditure for the same year of the 177 public hospitals combined amounted to 4,663,904 florins, which gives an average of 79 kreutzers expenditure per diem per patient. The medical treatment in many Austrian hospitals, especially in those of Vienna, is amongst

the most advanced in Europe. The Viennese institutions are much resorted to for the purpose of study by foreign students, who acquire in them practice and knowledge. No diploma, however, is given for less than the full curriculum.

HOSPITALS BELONGING TO MANUFACTORIES AND INDUSTRIAL ENTERPRISES.

These hospitals form a special feature in the hospital system of Austria. They are 56 in number, with a service of 806 beds. Most of these establishments are located in the mining and manufacturing districts of Steiermark, and are reserved especially for the use of the workmen. The State Railway has a hospital for its employés, and the Alpine Montau Company has also sick accommodation to the extent of 410 beds for in-patients, and possesses 16 dispensaries. But perhaps the most important of all these industrial charities is the hospital in connection with the iron and steel works at Witkowitz in Mähren. It is of recent construction, built to contain 70 beds, and is stated to be of unrivalled excellence throughout the Austrian Dominions. The company has another hospital with 40 beds, with which is connected a department for epidemic diseases. Many other works and factories have provision for infectious diseases, besides ordinary sick accommodation.

HOSPITALS AND MEDICAL SCHOOLS.

Many of the medical faculties of Austrian Universities have special clinical hospitals erected in connection with them.

In Vienna the General Hospital has a certain proportion of the beds set apart for the purposes of clinical instruction. The same arrangement obtains in Prague and Buda-Pesth.

A new clinical hospital in connection with the medical faculty of Innsbruck was opened in 1885. The institution was erected by the town, and is built in pavilion style. Northwards the main entrance leads to the two-storied pavilions for diseases of the eye and diseases of women. There is an observation room on the ground floor for cases not immediately admissible into any special department. To the south-east is the medical pavilion in three blocks, and to the south the surgical schools with two blocks. To the south-west is the syphilis and dermatological department. There is an adminis-

tration building, a home for the Sisters of Charity, and an engine and machine house.

Each department has a lecture hall and laboratory for the professors and assistants.

The new surgical schools in connection with the Jagellonic University of Cracow, Poland, were opened in 1889. The building is in the style of the Italian Renaissance, and is divided into three blocks, the central block containing lecture and instruction rooms, and the side blocks the various wards. The wards accommodate ten or twelve patients.

BUDA-PESTH.

Buda-Pesth contains four hospitals—the Infectious Diseases Hospital, the St. John (with two branch establishments), the St. Üllöer Street Hospital, and the St. Roche (with two branch establishments).

These institutions do not come up to the standard of modern requirements, with the exception of the St. Üllöer Street Hospital. The St. Roche is to be replaced by a new establishment containing 1,000 beds. This hospital was built in 1796, and has received additions from time to time. It consists of two stories with 14 beds to a ward. About 868 patients receive treatment during the year. Infectious diseases are admitted at a branch establishment.

The hospitals of Buda-Pesth are under municipal control. They are administered by medical directors who manage the medical and sanitary affairs of the hospital, and by superintendents who govern the domestic staff. The hospitals are largely self-supporting, paying patients only being admitted. Paupers are paid for by their parishes, and employers are liable for the treatment of their workmen within certain limitations. The nursing at the Buda-Pesth hospitals is in the hands of nuns and lay women, except in special cases, where male attendants are employed. The average proportion of nurses to patients is 1 to 10.

The St. Üllöer Street Hospital.

This hospital was built in 1885. It is situated outside the town and built in pavilion style; all arrangements for ventilation and heating are excellent. The wards contain on an average 18 beds, and the average number of beds occupied throughout the year is 600. The nurses are Sisters of Mercy, and have a home provided for them. The income of the hospital for the year 1887 amounted to 173,239 florins, and the expenditure to 156,304 florins.

BOHEMIA.

The hospitals of Bohemia, numbering 14 public and 19 private institutions, present no special characters as distinct from those of the rest of Austria and Hungary. They contain 2,748 beds in all, of which total Prague, the capital, has 1,789. There is a provision of 1 bed to every 800 of the population. Sick paupers in Bohemia are largely provided for by the Royal Fund for the purpose. Each parish pays a fixed sum for patients admitted into the hospitals.

Prague.

Prague contains three public and nine private hospitals, the most important of them being situated in one portion of the city. Foremost amongst these institutions stands the General Hospital, with 1,070 beds. The Hospital of the Sisters of Mercy contains 220 beds, and the Hospital of the Brethren of Mercy 168. The most important special hospitals are the Elizabethan Women's Hospital and the Franz Joseph Children's Hospital. Prague possesses also two prison hospitals and a military establishment. Connected with the General and the Women's Maternity Hospital are the University Medical Schools.

The General Hospital at Prague is a State institution, and was built in the year 1787 by the Emperor Joseph. The hospital, which has an austere appearance, is built on the corridor system, and contains 1,070 beds. The hospital transfers cases to the Hospital of the Sisters of Charity, and pays that institution a uniform rate of 72 kreutzers per diem per patient. For children transferred to the Franz Joseph Children's Hospital it pays 61 kreutzers per head. Small-pox cases are taken by the Hospital of the Brethren of Mercy at 72 kreutzers per patient. The income of the hospital in 1887 amounted to 180,376 florins, and the expenditure was 348,619 florins.

The Elizabeth Hospital for Women, Prague.

This magnificent lying-in establishment in Prague was erected between the years 1867-75. The site covers 5 acres, of which $1\frac{2}{3}$ acre is occupied by the buildings. The building follows the plans of the Rudolph Hospital at Vienna. It is constructed of red glazed brick, and the appearance of the establishment from the outside is most imposing. There is a central building with three wings on either side. These wings are 149 feet long by 35 feet wide, and

are 57 feet apart. The central block measures 190 feet by 40 feet. In the main block are dormitories for midwifery pupils, nurses, and midwives, with workrooms for pregnant women on the ground floor. The first floor is occupied by four large lying-in wards, with attendants' room and bath rooms, lecture rooms, arranged in the form of an amphitheatre, and two observation rooms. In the wings on the ground floor are private wards, and lying-in wards with six beds only. In the stories there are, again, wards with six beds only in each. One ward is kept vacant in rotation for disinfection, and the flooring is of varnished oak. The heating is by Meidlinger stoves. The institution is divided into three medical departments, (*a*) the German Midwifery School, (*b*) the Czech Midwifery School, and (*c*) the Midwives' Training School, each having 40 beds for pregnant women and 60 for lying-in women. Connected with each of the schools are two professors, three of them being University professors. There are two obstetric assistants for each department. Students are required to attend the practice of the establishment during a period of six months, and accommodation is provided for them. No fixed attendance at confinements is required by the University, and there is no midwifery practice in the town itself. The institution belongs to the Crownland, and really includes a foundling as well as a lying-in establishment. The annual outlay of 280,000 florins falls mostly upon the Crownland Funds. A certain amount, however, is paid by patients, and there is a sum of money invested.

VIENNA.

It appears that Vienna was possessed of a large number of hospitals as early as the seventeenth century. The most ancient of these would seem to be the Borough Hospital of the Holy Spirit, which was founded by Frederic the Combative in the year 1240. In 1532 it was removed to the Convent of the Clarissa Nuns. Like most hospitals of that period it combined the attributes of an almshouse with those of a hospital. This institution appears to have been the most important of its kind in Vienna for nearly three centuries, and at one time it is reported to have contained 3,000 inmates. It still retained an important position in 1754, and between that year and the year 1756 the medical schools were located there. The Hospital of St. Mark, which was erected previous to 1394 from money bequeathed by a private individual, was incorporated at the time with the Borough Hospital, after

having been twice destroyed by the Turks. In 1780 the Emperor Joseph conceived the idea of abolishing the system of small medical charities which had multiplied in Vienna, and amalgamating these establishments in one large institution. At that period the existing hospitals included "The Crusaders' Hospital," erected for twelve patients by the knights of that Order, the Military Hospital, formerly a lazaretto, the Contumazhof Hospital, the Bæckerhaensel Hospital for convalescent patients, with 300 beds in connection with the Borough Hospital, the Imperial Hospital for employés at the Court, the Spanish Hospital, and the Trinity Hospital (the outcome of private charity, and containing 66 beds), and to these was added the Strudel Hospital.

In order to carry out his amalgamation scheme the Emperor Joseph decided to appropriate the large workhouse for the purpose, distributing the inmates elsewhere. He also proposed to remove the medical school thither. The workhouse in question had been founded by Leopold I. in 1690. Besides fulfilling the purpose of a workhouse proper, it acted also as an Hôtel des Invalides for soldiers and their families. It possessed an infirmary. To carry out the scheme of the Emperor an elaborate rearrangement of all existing charitable institutions was necessary, and considerable additions had to be made at the workhouse, which was to assume the title of the General Hospital. It is noteworthy that one of the architects who submitted plans to the Emperor pointed out the advantage, from a sanitary point of view, of small hospitals over large ones. The establishment in its new form was opened in 1784, and was of a very comprehensive nature, containing departments for maternity cases, lunatics, and foundlings, besides sick inmates. Additions were made in 1834 and in 1862. In 1860 the maternity, lunatic, and foundling departments were placed under separate management. As the General Hospital retains its position of importance as being one of the principal hospitals of Vienna, we have given elsewhere a detailed account of its present arrangements.

The principal hospitals in Vienna at the present time, besides the General Hospital, are :—

The *Royal Rudolph Hospital* and the *Royal Wieden Hospital*, which two, together with the *General Hospital*, are under the same administration ;

The *Inquisiten Hospital*, belonging to the Provincial Government, with 163 beds ;

The newly built *Favoriten Hospital*; and
The *St. Anne's Children's Hospital*.

Vienna at the present time possesses hospital accommodation at the rate of 1 bed to every 150 inhabitants. Patients number at the rate of 1 to every 13 inhabitants. These are distributed over twenty-four hospitals, four of which are public institutions and the rest private. The principal establishments are the four Royal Hospitals—the General with 2,000 beds, the Rudolph with 860 beds, the Wieden with 597 beds, and the Favoriten with 560 beds. Of the private hospitals that of the Barmherzigen Brüder (Brethren of Mercy) with 232 beds is the largest. There are five hospitals for children, that of St. Anne containing 120 beds, a maternity hospital, a small-pox and epidemic hospital.

This last hospital was built on the occasion of the outbreak of cholera in 1873, and was the first hospital built in the pavilion style in Austria. It contains 300 beds. It was erected by the town at a cost of upwards of £39,000. The cost of maintenance is defrayed partly by the revenues accruing from the property of the General Hospital Fund, and partly by patients' payments. The small-pox hospital contains 120 beds, and consists of four wards situated in wooden barracks.

The remainder of the Viennese hospitals contain from five to ninety beds. The following table gives the number of beds and patients treated in the larger hospitals.

TABLE giving Number of Beds and of Patients treated in the six largest Hospitals in Vienna in the year 1887.

Name of the Institution.	No. of Beds.	Cases Treated during the Year.	Remaining Dec. 31, 1887.
Royal and Imperial General Hospital	2,000	25,796	1,731
" " Rudolph Hospital	860	8,031	599
" " Wieden Hospital	630	7,189	486
Hospital of the Barmherzigen Brüder	232	4,140	200
St. Joseph's Children's Hospital ...	163	1,173	62
St. Anne's Children's Hospital ...	120	1,418	50

The Königliche und Kaiserliche Allgemeines Krankenhaus (Royal and Imperial General Hospital), together with the Wieden, the Rudolph, and the Favoriten or Franz Joseph Hospitals, are all State institutions and are the largest of their kind in Vienna. It will suffice, therefore, to give an account of one of these hospitals, as they are all worked on precisely the same lines.

The General Hospital.

This hospital owes its existence as a hospital to the munificence of the Emperor Joseph, who adapted it from its original purpose as a workhouse, and converted it into a hospital, asylum, and foundling institution. In 1834 all those departments not strictly appertaining to the sick were removed to other management. The hospital now contains 2,000 beds, and has an out-patients' department.

Administration.—The hospital is under State control as before mentioned. It is administered by a medical director and a superintendent. The medical director receives a salary of 3,800 florins per annum with residence.

Medical Staff.—The medical staff of the hospital consists of five senior physicians, and five senior surgeons. Each senior physician and surgeon has three assistants under him. There are, besides these, sixteen dressers who assist where operations are performed. The medical staff is paid by the hospital directors from the hospital funds. The senior members of the staff receive a salary of 1,800 florins each per annum without residence. Subjoined are tables showing the arrangements of the various medical departments with number of nurses and beds in each ward.

Nursing Staff.—The nursing staff consists of 226 persons, all lay women, with the exception of twelve male attendants. There is on an average one nurse to every ten patients. The female nurses are paid from 12 florins to 16 florins per month with board, washing, and uniform. The male attendants receive from 15 to 19 florins per month, also with board, washing, and uniform. In both the Rudolph and the Wieden Hospitals members of religious sisterhoods act as nurses.

Patients.—Patients are admitted either on payment or free, according to the nature of the case. They are divided into three classes, paying as follows: Class I., 5 fl. per diem; Class II., 2 fl. 50 kr.; and Class III., sums varying from 1 fl. to 17 kr. per diem. The highest of the payments in Class III. are made by patients who are not inhabitants of Vienna. Incurables, lying-in cases, and children under four years of age are not admitted.

TABLE SHOWING THE MEDICAL AND NURSING STAFF, THE ACCOMMODATION, ETC., OF THE GENERAL HOSPITAL, VIENNA.

I.—Hospital Departments.

In these departments advice is given to out-patients. There is also an out-patient room for electrical treatment.

Department.	Medical Staff.	Wards, numbered.	Beds.		Nurses.		Remarks.
			Males.	Fe- males.	Fe- males.	Total.	
First Medical ...	1 Senior Physician.	47	20	...	2	...	The head of this department is also head of the department of the Students' Sick Society.
	1 Junior Physician, Class I.	48	20	...	2	...	
	2 Junior Physicians, Class II.	49, 50	...	29	3	...	
		51	...	14	2	...	
		52a	...	19	2	...	
Second Medical						11	The Senior in this department is also head of the Third Medical Clinic and the Clinic for Diseases of the Throat.
	1 Senior.	52b	...	20	2	...	
Third Medical	1 Junior, Class II.	53	28	...	2	...	The head of this department is also head of the two divisions for paying patients. No. 20 Ward is a reserve.
						48	
	1 Senior.	87a	32	...	2	...	
	1 Junior, Class I.	87b	...	23	2	...	
	2 Junior, Class II.	88	...	28	3	...	
Fourth Medical						9	
						108	
						25	
	Do.	89	...	21	2	...	
		90	...	30	3	...	
Fifth Medical ...		101	29	...	3	...	
		108	29	...	3	...	
						11	
	Do.	99	...	33	3	...	
		100	...	19	2	...	
		102	21	...	2	...	
		103	34	...	3	...	
						107	10

1.—Hospital Departments of Vienna General Hospital—continued.

Department.	Medical Staff.	Wards, numbered.	Beds.		Total.	Nurses.		Remarks.
			Males.	Fe- males.		Fe- males.	Males, Total.	
First Surgical ...	1 Senior Surgeon. 1 Junior Surgeon, Class I. 3 Junior Surgeons, Class II.	1	13	...	102	2	...	
		2	18	...		2	...	
		3	20	...		2	...	
		4	12	...		2	...	
		6	...	19		2	...	
		...	...	20		2	...
		7	...	...		2	...
Second Surgical	Do.	11	...	20	74	2	...	
		12	20	...		2	...	
		13	20	...		2	...	
		15	14	...		2	...	
		8, 9, 10	...	28		4	...	
Diseases of Women.	Do.	40	...	18	28	2	...	The head of this department is also head of the Surgical Department of the Students' Sick Society, and of the Surgical Branch of both the departments for paying patients.
		41	20	...		2	...	
		42	22	...		2	...	
		81	...	18		3	...	
		82	26	...		2	...	
Third Surgical	Do.	104	The head of the Second Eye Clinic is at the same time head of this department, his assistant acting as junior.
		43	...	14		3	...	
		44 ^a	22	...		2	...	
For Diseases of the Eye.	1 Senior. 2 Juniors, Class II.	72	26	...	36	2	...	The head of this department is head of the Clinic for Syphilis, and the assistant in that department acts as junior, Class I.
		73	26	...		2	...	
		74	...	26		2	...	
First Syphilis	1 Senior. 2 Juniors, Class II.	75	...	25	103	2	...	
		
		

I.—Hospital Departments of Vienna General Hospital—continued.

Department.	Medical Staff.	Wards, numbered.	Beds.		Nurses.		Remarks
			Males.	Females.	Total.	Females.	
Second Syphilis.	1 Senior. 1 Junior, Class I. 2 Juniors, Class II.	18a	...	29		2	The head of the Clinic for Skin Diseases is head of this department, and his assistant acts as Junior, Class I.
		18b 1	21	...		2	
		18b 2	13	...		2	
		18c	24	...		2	
		19	20	...	107	2	
For Skin Diseases, with de-bathing department for continuous baths.	1 Senior. 2 Juniors, Class II.	29	23	...		2	The continuous bath (Z, No. 34 Ward) contains seven water beds.
		30	...	28		2	
		59	20	...		2	
		60	24	...	95	2	
		34	...	...		2
Mental } Class Diseases } III.	1 Senior. 3 Juniors, Class II.	62	...	20		3	The head of the Clinic for Mental Diseases and Nervous Complaints is also head of this department, and his clinical assistant acts as junior, Class I., in this department
		63	20	...	40	...	
		67a	3	...		3	
		67b	...	4	7	3	
		61a	13	...		2	
Diseases of Nerves.	1 Senior. 1 Junior, Class I.	61b	...	9	22	...	The assistant medical and surgical staff is the same as for the First Medical and Third Surgical Departments.
		25	5	...		2	
		66a	...	3	8	1	
		26	14	...		3	
		66b	...	5	19	1	
Students': Medical ... Surgical ...	1 Senior. 1 Junior, Class I.	27a	10	...		2	Do.
		27b	10	...	20	2	
		...	692	547	1,239	...	
		7 Seniors ; 8 Juniors, Class I. ; 29 Juniors, Class II.	
		20 Departments	

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F F

II.—Clinics, or Medical School Departments, at Vienna General Hospital.

	Medical Staff.	Wards, numbered.	Beds.		Nurses.		Remarks.
			Males.	Fe- males.	Fe- males.	Total.	
First Medical ...	1 Professor and 2 Assis- tants.	93 ^a	22	...	2	...	9
Reserve Wards		93 ^b	...	10	2	...	
		91	32	...	3	...	
		92	...	18	2	...	
Second Medical	Do.	95 ^a	...	11	2	...	8
Reserve Wards		95 ^b	19	...	2	...	
		94	...	21	2	...	
		104	24	...	2	...	
Third Medical	Do.	70 ^a	13	...	1	...	4
		70 ^b	...	16	1	...	
		71	26	...	2	...	
			
First Surgical ...	Do.	79 ^a	16	...	2	...	10
Reserve Wards		79 ^b	...	18	2	...	
		38	12	...	2	...	
		78	...	21	2	...	
Second Surgical	Do.	80	17	...	2	...	10
Reserve Wards			...	...	...	...
		17	...	20	2	...	
		55 ^b	14	...	2	...	
First Ophthalmic	Do.	16	...	18	2	...	8
Reserve Wards		54	18	...	2	...	
		55 ^a	15	...	2	...	
			
		57 ^b	24	...	2	...	10
		58 ^a	...	19	1	...	
		58 ^c	2	2	1	...	
		57 ^a	24	...	2	...	
		58 ^b	...	18	2	...	8

Also schools for operation with eight pupils. There are three isolation cells in connection with No. 38 Ward.

Also schools for operation with eight pupils. There are three isolation cells in connection with No. 17 Ward.

	Medical Staff.	Wards, numbered.	Beds.		Nurses.		Remarks.
			Males.	Total.	Fre. Males.	Total.	
Second Ophthalmic.	1 Professor and 2 Assistants.	44 ^b 46	21 ...	19 40	2 3	...	5
First Gynecological.	1 Professor and 1 Assistant.	86	...	25	3	...	3
Second Gynecological.	Do.	85	...	16	4	...	4
For Syphilis ...	Do.	76 77	...	26 ...	3 2	...	5
For Skin Diseases.	Do.	31 33	...	24 18	2 2	...	4
For Diseases of the Throat.	Do.	69 ^a 69 ^b	8 ...	10 18	1 2	...	3
For Diseases of the Ear.	2 Professors and 1 Assistant.	14 ^a 14 ^b	11 ...	8 19	2	...	2
For Mental Diseases.	1 Professor and 2 Assistants.	21 22 23	45 ...	35 80	...	8 7	15
13 Clinics ...	14 Professors and 22 Assistants.	—	406 355	761	82	8	90
20 Hospital Departments.	7 Seniors, 8 Juniors, Class I.; 29 Juniors, Class II.	—	692 547	1,239	132	4	136
33 Departments	21 Seniors, and 59 Juniors	—	1098 902	2,000	214	12	226

F F 2

Movement of inmates, 1889–1890.—Remaining December 31, 1889, 1,810; admitted during 1890, 22,475; treated during 1890, 24,285; cured, 13,150; improved, 4,895; unimproved, 2,186; transferred to branch hospital, 545; died, 2,309; remaining December 31, 1890, 1,745.

Income.—The income of the General, as that of all the Royal hospitals of Vienna, is derived from (a) the Royal Hospitals Fund; and (b) the Reserve Fund for the same hospitals. These funds are derived from a variety of sources, too numerous for full enumeration, but such, for example, as interest on the original capital of the hospitals, patients' payments, legal tolls and duties, subscriptions and donations, &c.

The income thus accruing to the Hospitals Fund in the year 1872 was 1,206,506 fl., or about £100,542; and to the Reserve Fund, 201,793 fl., or about £16,816.

Expenditure.—The net expenditure of the hospital in 1890 amounted to 761,316 fl., distributed in the following manner:—

	fl.
Salaries, medical staff, and officials	111,590
Rent	550
Nursing staff, including board	82,362
Office expenses	9,644
Food, &c.	258,235
Medicines, instruments, and baths	149,693
Heating	18,576
Washing	53,778
General expenses	220,367
Gross Expenditure	904,795
Deduct various Receipts	143,479
Net Expenditure	761,316

Medical School.—Attached to the General Hospital is the principal medical school. The teaching staff consists of fourteen professors and about twenty-two assistants. The students number about 100. The staff is paid from the State educational department, but is under the control of the university authorities.

Special features.—A special feature in this hospital is the department for the "continuous bath" *régime*, where patients suffering from certain forms of skin diseases and other ailments are kept in baths heated as a rule to blood heat. They rest on air or water beds.

The Favoriten Hospital.

This institution, now known as the Emperor Franz Joseph's Hospital, is situated just outside Vienna proper, with a frontage on the Triest Street. It was commenced in 1887. It stands on about thirty acres of ground, and is built in the form of a pentagon, in pavilion style.

The hospital contains 560 beds, 140 of which are devoted to infectious cases. The infectious department is divided into four divisions: one pavilion of sixty beds, and two of forty, and the fourth contains the administration. 2,100 to 2,800 cubic feet of air space per bed are provided. This group of buildings is separated from the main buildings by a hedge and a wire-fence.

The hospital proper consists of a horseshoe pavilion with 180 beds, three pavilions with sixty beds, administrative block, etc.—2,000 to 2,600 cubic feet air space per bed are provided. The roofing is arched, and the flooring, which is of tiles throughout, is laid on cement.

The St. Anne's Children's Hospital.

This Hospital was originally the effort of a private individual, but was subsequently handed over to a committee of management having eleven members, and consisting principally of ladies.

The hospital as it now stands contains 120 beds. The wards have from six to eight beds in each, are 12 feet high, and 850 cubic feet of air space are allotted to each bed. Children admitted from institutions, or on account of any of the hospitals not admitting children for treatment, pay specified charges—usually 45 kr. per diem, or, in the case of children of well-to-do parents, 70 kr. per diem.

The General Dispensary.

This institution, the largest of its kind, was established in 1871 by members of the medical profession. During the following year it was divided into twelve sections, and 11,962 patients received treatment free of charge. Since then its sphere of usefulness has been enlarged and now includes—(a) instruction; (b) the visiting of patients in their own homes; and (c) the maintenance of beds in various hospitals.

The funds are derived from (1) the property of the original society; (2) entrance fees of members; (3) donations and subscriptions.

Members are called upon to make up any deficit.



CHAPTER XVIII.

BELGIUM.

ADMINISTRATION AND MANAGEMENT.



THE main principle underlying the Belgian hospital system is one of decentralisation. Every commune has the control over its hospitals and asylums. The communal council appoints a commission charged with the duties in this connection. This commission, as a general rule, consists of five members, to whom is entrusted the supreme supervision of all such institutions in the commune. The actual direction of each hospital is usually delegated to one individual known as the "directeur," who is responsible to the commission alone for his actions. At Audenarde the director is replaced by a member of the commission who is detailed to fulfil these duties for a month. All the members of the commission take this work in rotation, and are known during their term of office by the title of "Commissaire du Mois." To meet these special arrangements another functionary is employed at Audenarde called the "Économe Dépensier," who is placed in charge of the domestic and other services of the institution, and who acts under the Commissaire du Mois as manager of the internal arrangements. The Économe Dépensier is charged with the executive duties and makes all petty payments, but he has no control over the nursing department.

Sometimes, as at L'Hospice des Sœurs de la Charité, at Tournai, the actual direction of the institution is entrusted to a lady superintendent, assisted by a staff of nurses. Very often the director's place is occupied by a "directrice" who belongs to one

of the great religious sisterhoods and generally to the same convent that supplies the nursing sisters. But whatever the actual arrangement may happen to be at any given hospital, the principle is the same for all alike, namely, one managing director in sole charge, subject to the Commission des Hospices Civils. The only way in which the Government can interfere with the economy of any hospital is by bringing pressure to bear upon the Communal Council, and the electorate controls them through the legislature in the same way. Private foundations, the product of personal munificence, all fall under the common system, and there is no instance of a hospital supported by voluntary contributions and directly under the control of the subscribers.

Admission of Patients.

Admission to the hospitals is granted upon delivery by the applicant of a certificate signed by one of the medical staff of the hospital or by a member of the hospital commission. The police may also send in cases. This admission order is dispensed with in cases of accident or sudden emergency.

ISOLATION WARDS AND FEVER HOSPITALS.

For cases of contagious diseases isolated wards exist in a considerable number of hospitals. Information of the existence of such diseases has to be immediately given to the communal hospital commission. In the province of Liège, there was a hospital specially intended for the reception of small-pox cases and quite distinct and apart from all the other hospitals. This institution has, however, been closed for many years.

MAINTENANCE.

From the communal system on which Belgian hospitals are conducted it results that all the accounts of the separate institutions in each commune pass into one fund managed by the hospital commission. Consequently it is impossible to give the total receipts and expenditure of each individual establishment, with the average cost per bed throughout the country. Very complete facts concerning the hospitals collectively are, however, forthcoming as one good result of the Belgian system.

Taking in the first instance the published accounts of the

"Administration des Hospices et Secours de la Ville de Bruxelles" for the year 1888, the following facts are to be gleaned :—

Receipts.

The receipts are divided into three classes, as follows :—

(1) *Certain Receipts.*

Whence derived.	Francs.	Approximate Value in Pounds Sterling.
Leases	347,068	13,882
Rents	53,865	2,154
Stocks and franchise	19,335	773
Receipts in kind, valued in money	36	1
Transferred Stocks	7,937	317
Stocks held by the Belgian State	427,794	17,111
Interest upon the price from the sale of real estate ...	12,252	490
Lease of preserves	8,817	352
Charitable contributions towards the expenses of the administration	26,000	1,040
Interest from the endowment of deaf-mutes and the blind	1,019	40
Total from all sources	Fr. 904,123	£36,160

Five years previously, in 1883, the income drawn from the sources detailed above was 977,052 fr., or £39,082 approximately, so that the decrease in 1888 amounted to about £2,922.

(2) *Variable Receipts.*

Whence derived.	Francs.	Approximate Value in Pounds Sterling.
Wood-felling	21,012	840
Interest on capital lent to the Mont-de-Piété	64,099	2,563
From the common fund instituted by the Law of March 14, 1876, three-quarters of the cost of maintenance of the insane, blind, deaf-mutes, and sick received into the institutions of the Administration	84,938	3,397
Quota of the Belgian State and the Province of Brabant in the cost of maintenance of foundlings and abandoned children whose domicile for relief is unknown	4,112	164
Total from all sources	Fr. 174,161	£6,964

In 1883 this class of receipts produced 163,955 fr., or approximately £6,558, so that the increase in the year under review was about £406. This

increase is accounted for by the growth in the sums derived from (1) the interest on capital lent to the Mont-de-Piété, which was £2,563 in 1888 as against £2,334 in 1883, and (2) the receipts from the common fund, which were £3,397 as against £2,742. All the other items show a considerable decrease.

(3) *Contingent Receipts.*

Whence derived.	Francs.	Approximate Value in Pounds Sterling.
Sale of orphans' work	327	13
Payments from midwifery pupils	3,000	120
Fees of private patients at the St. Jean Hospital ...	38,203	1,528
" " St. Pierre " ...	19,237	769
" " Maternity " ...	1,623	64
Fees from paying children at the Roger de Grimberghe Home	16,185	647
Maintenance of syphilitics, to be paid by Brussels ...	10,567	422
Maintenance of patients not natives of the town ...	387,238	15,489
Various unforeseen receipts	102,736	4,109
Recovery of fire insurance premiums	718	28
" expenses in connection with leases ...	3,493	139
" " boundaries... ..	340	13
Quota from charity towards the general expenses of the refuge for pauper children	7,121	284
Concessions of cemetery plots	7,992	319
Deduction from the price realised by sale of building plots to account for the loss of rents and interest on capital expended in making such plots valuable	416	16
Sum realised by sale of drugs by the Roger de Grimberghe Home... ..	175	7
Total from all sources	Fr. 599,371	£23,967

In 1883 this class of receipts amounted to 745,303 fr., or approximately to £29,812, so that the year under review shows a deficit of £5,845.

Total Income from All Sources.

A summary of the whole shows that the total receipts for 1888 amounted to some 1,677,655 fr., or to about £67,091, as against a grand total of £75,452 in the year 1883.

From another report we learn that no special endowment exists for any individual establishment. The property of all the institutions is amalgamated into one joint "patrimony," in accordance with the laws relating to the organisation of public charities, dating back to the year 1794. In March 1876 a law was made, bearing upon the question of domiciliary relief, by which the expenses of maintenance of the destitute devolve upon the charity

administrations. It is only in presence of a deficiency in their resources that the commune, or if need be the province, is appealed to for a subsidy.

EXPENDITURE.

It is impossible to give an equally intelligible explanation of the expenditure, because the many items are not classified in the same way. The total expenditure for the year 1888, however, amounted to 1,690,863 fr., or approximately to £67,634. As the receipts were only £67,091, the deficit on the working of the hospital commission was £543. Compared with the year 1883, this is an encouraging state of affairs, as the deficit then was about £3,642. With regard to the scale of salaries, wages, and retiring pensions for the medical and domestic staff of each institution, we are unable to make any statement, for although in the tabulated list of expenditure the various items are shown for each of the hospitals under the administration, yet the numbers of the staff are not included, thus rendering any deductions impossible.

MEDICAL STUDENTS.

At the Bavière Hospital, it is provided by Article 8 of the Law of July 15, 1849, upon higher education, that the professors of the medical, surgical, and ophthalmological clinics, during the university terms shall attend to the patients placed in the wards set apart for them.

The doctors and surgeons are assisted by resident and non-resident medical students, the number of whom is fixed by the hospital commission in accordance with the requirements of the service. One of the resident medical students, under the direction of the medical officers, has to keep a daily register of all the cases which come in, showing the nature of the disease, the remedies applied, the operations and their effects, the result obtained, and, where necessary, the account of the autopsy which the heads of the service can always demand and have executed by the resident students. The latter are responsible for keeping the registers in good condition, as well as for their actual preservation until they are closed, when they deliver them to the director. The registers are kept in the hospital, where they may always be consulted by any medical man attached to the institution. The director sees

that they are properly classified, and bound according to their year and branch of the medical service.

The university clinical professors in their respective wards enjoy exactly the same privileges as the hospital physicians and surgeons, with the exception, however, of those regulations which concern the admission and classification of patients. Patients whose complaints are of a nature likely to be valuable for purposes of university teaching are as far as possible placed in, or transferred to, the clinical wards, unless they positively express their reluctance to become the subjects of demonstration. Whenever there are beds vacant in the ordinary wards, the clinical professors may claim them for convalescents or patients whose cases have ceased to be of interest for purposes of instruction, and to effect their wishes they put themselves into communication with the physicians or surgeons of the hospital.

Some of the resident students are attached to the medical and others to the surgical service. They are selected from the non-resident medical students by competitive examination. The examination is held in the hospital, before the medical staff, and at least a fortnight after public notification in the newspapers. The medical staff appoint a president and secretary, draw up a programme of the examination, and judge the work of the candidates. They then lay their report containing the result of the examination before the hospital commission, which reserves to itself the right of appointing the resident students. The appointment holds good for two years. If a post of resident medical student falls vacant, the commission, upon the recommendation of the chief of the service, may confer it provisionally or definitely upon a non-resident student who has given proof of his knowledge and capability in the preceding examination. In the case of a resident student being absent or incapacitated, his place is taken by a non-resident student selected by the chief of the service, and approved by the commission. If the absence or incapacity lasts a month or more, the *locum tenens* draws the resident student's salary so long as he performs the latter's duties, and also enjoys the other advantages extended to the resident pupils, supposing this is possible. In this case he has the same duties and obligations.

The resident pupils receive lodging and fuel at the expense of the administration, and also draw the salary fixed by the annual budget. They are present at the daily visits of their respective chiefs, to whom they report the condition of the patient during

the interval since the last visit. They enter the prescriptions carefully upon the visit sheet, see that the medicines correspond with the prescriptions, superintend the giving of medicines and the careful observance of the diet ordered for each patient, and perform the dressings and all other minor surgical matters when required to do so by the house surgeon. They further have to see that all apparatus belonging to the administration, such as the linen and lint for dressings, is always available in sufficient quantity for the service of the wards, distribute it to the non-resident students according to their requirements, and satisfy themselves that these latter put it to a proper use. They carry out the post-mortem examinations in the presence and under the direction of their several chiefs. They must repair to the bedside of any patient for whom they are summoned at any hour of the day or night.

A resident student may never sleep out under any pretext whatever, without special permission from the director granted upon the recommendation of the house physician or surgeon, who makes arrangements, if need be, for the provisional replacing of the student. If his absence lasts more than two weeks consecutively the matter must be referred to the hospital commission. Students must be in the hospital by 11 o'clock every evening, unless by way of exception they have obtained special permission from the director to be in later. The door can never be opened after 11 P.M. without the director's leave. The latter reports any serious infractions of this rule to the hospital commission. Any resident student who sleeps out without the required permission, or who has proved unfaithful to his duties, may be dismissed by the commission. This holds good also of resident students who, through carelessness or incapacity, have caused any serious injury to a patient. When any important operation has been performed, the resident students on the surgical side are forbidden to leave the hospital unless they have received permission to do so from the surgeon, who informs the director.

NON-RESIDENT MEDICAL STUDENTS.

The non-resident students are chosen by the hospital commission, upon the presentation of the house physician and house surgeon, from among those medical students who have distinguished themselves by their knowledge and good conduct. They are required to follow carefully the visits of the senior medical officers, and to

perform all the dressings that may be ordered. In case of need their help may be required more than once in the day, and they may even have to perform night duty by a patient's bedside. After every visit they affix their signatures to a register which is kept for the purpose, and is *visé* every day by the director. Their punctuality is further insured by the fact that the hospital commission appoints as resident students only those non-resident students who have given proof of zeal and assiduity. Upon the appointment of a resident student the director sends to the commission a statement showing the number of times the non-resident students have been absent.

They are not permitted to perform any operation, bleeding excepted, unless in the presence and under the guidance of the house surgeon. They do not draw any salary, but at the end of the academic year the commission, upon the recommendation of the senior medical officers, confers prizes upon those who have won distinction by their devotion, zeal, and assiduity. Any non-resident student who fails to perform his duties punctually and regularly, and has no authority or just reason to show, may be considered to have resigned his post, and the commission, upon report made to it, decides on the matter. They are subject to dismissal by the commission in case of grave negligence certified by the medical officers.

STUDENTS ON GUARD.

The student on guard is obliged to be present in the hospital for twenty-four hours, and to lend his services in every ward when required, in the absence of the resident student and of the clinical chief. He is relieved every day at 1.30 P.M., and cannot leave the hospital until his successor has appeared. A notice setting forth the name of the student on guard is fixed in a conspicuous place accessible to the whole staff of the hospital. He takes his meals at the hospital at the expense of the administration. Any carelessness on his part is reported to the house physician or surgeon, who, upon a second offence, lays both complaints before the commission or faculty of medicine.

CLINICAL LECTURES.

All the medical students, in and out alike, are obliged to go through the wards every morning to hear clinical lectures. At the

Hôpital de Bavière, Liège, the medical and surgical service is entirely handed over to the university, and four clinical courses are provided—in medicine, surgery, ophthalmia, and cutaneous and syphilitic diseases. At the Hôpital des Anglais, on the other hand, absolutely no clinical cases are taken, for it has been found advisable to separate the university service from that of public charity properly so called. All the clinical investigation and demonstration is therefore confined to the Hôpital de Bavière. At the Maternity Hospital of Liège the university provides a clinical lecture on midwifery, and a midwifery school is also attached for the training of professional midwives.

APPOINTMENT OF RESIDENT AND NON-RESIDENT MEDICAL OFFICERS.

Except in unusual cases the resident medical officers are chosen from among the non-residents either on active service or not, aged at least thirty, and nominated at least three years. Their appointments can be renewed every five years, but in no case can they hold them after the age of sixty. At the expiration of their appointments they receive the title of physicians or surgeons of the hospitals, and then share the privileges of the sanitary commission. All the medical staff receive an annual stipend.

The non-resident medical officers are obliged—

(i) To have qualified at least two years previously at a national or foreign university as doctor of medicine or as surgeon, and if at a foreign university they must be authorised to practise in Belgium.

(ii) To pass an examination in (*a*) a thesis, either oral or written, at their option; (*b*) a clinical lesson on three patients in the hospital; (*c*) a published written consultation or opinion on some case of importance; (*d*) practical operations and demonstrations on a dead body for the examination of surgeons.

Two months' notice is given to the candidates, who must obtain at least three-fifths of the maximum marks.

The examiners publish an alphabetical list of the successful candidates, who then hold their appointments for three years. They are eligible for reappointment for a like period, and in this case the commission can allow them a salary fixed by itself without prejudice.

MORTUARIES.

Attached to some hospitals are mortuaries for the reception of the bodies of patients who have died in hospital. When the death occurs in a private residence, the doctors can still insist upon the corpse being removed to the mortuary if they think fit, but in this case they are obliged to inform the authorities.

In doubtful cases the doctors can prolong the time during which the corpse must remain in the hospital or in the mortuary. Bodies can only be removed thither six hours after death, or within twelve hours if the death has been sudden. During this time as much care must be taken of the quondam patient as if he were still alive. No body may be buried before putrefaction has obviously set in, and a medical certificate to this effect is necessary. At least thirty-six hours, or forty-eight in the case of sudden death, must elapse between the death and burial, and even then the signs of decay must be unmistakable. This rule can only be broken when obvious decay at once sets in, or when the death has been caused by some highly contagious disease, such as small-pox or malignant fever.

MUSEUMS.

At the Bavière Hospital a collection of surgical instruments necessary for the various services is arranged and kept in a locked closet. The heads of the services see that these instruments are always kept in a proper state, and the resident medical student attached to the surgical side has the charge of them. Pathological anatomical specimens taken during post-mortem examinations or from surgical operations, and having any scientific interest, are delivered to the custodian of the university museum of pathological anatomy.





CHAPTER XIX.

DENMARK.

HISTORICAL.



THE hospital system in Denmark seems first to have originated in buildings for the reception of persons afflicted with leprosy. These buildings were called the "St. George's Houses." They existed as early as the twelfth century, and were under religious control. Further development of institutions for the treatment of the sick partook more of the character of almshouses than hospitals until the sixteenth century. At this period the St. George's Houses, now no longer required owing to the disappearance of leprosy from Denmark, together with various abandoned convents, were taken from the hands of the clergy, converted into infirmaries, and placed under organised administration. From the sixteenth century infirmaries were to be found in most of the large towns of Denmark, though they did not possess all the qualities of the hospital of the present day. At the beginning of the present century there were only twelve *bonâ fide* hospitals in Denmark, besides those in Copenhagen. In 1806 an era in hospital building commenced in the country. A royal decree directed that one or two hospitals should be erected in each of the seventeen districts of Denmark, and the Minister of Justice was authorised to issue a loan for the period of forty-one years, the interest of which was to be applied to the erection and maintenance of the proposed hospitals. In 1876 the number of hospitals had risen to 100, with a joint capacity of 5,816 beds in all, or one bed for every 507 of the population.

The Danish hospitals are nearly all under Government supervision, but they are frequently erected and directed by the com-

munes, whilst financially they owe much to private generosity. No hospital is permitted to be established until the opinion of the Supreme Council of Health has first been obtained, this Council being required to control all the hospitals. The Danish law provides that communes shall maintain a building for the reception of small-pox cases, and that Copenhagen and other seaports shall provide for the treatment of cholera introduced by arriving vessels, and authorises the Minister of Justice to enforce the law respecting the isolation of cases of dangerous epidemic disease. It also requires venereal patients to enter the hospitals. The development of Danish hospitals has tended towards the isolation of contagious diseases, and the establishment of hospitals for epidemics.

NURSING SYSTEM.

At the present time the Commune Hospital at Copenhagen forms the principal training school for nurses in Denmark. All the nurses of the Red Cross Society, and many nurses from the provinces, receive their training here, besides those retained for service in the hospital. The nursing staff at the Commune Hospital is divided into sections, each consisting of a superintendent or head nurse, six nurses, and two probationers. Each section has charge of from fifty to sixty beds, or half the patients under the care of one physician or surgeon. The head nurses, who are educated ladies, superintend the nurses under their charge, give instruction, and attend the surgeons at operations. They receive a salary of from 700 to 800 kroner, or from £36 to £43 per annum, with board. The nurses usually belong to the middle classes; each nurse has charge of a ward, and assists her superintendent in giving instruction to the probationers. The nurses receive 20 kroner per month, or about £13 10s. per annum.

The probationers are limited in number, owing to want of accommodation. Their period of primary probation lasts two months, after which, if they elect to enter the service of the hospital as probationers, they receive twelve kroner per month, with board.

It is proposed to erect a new school for nurses in connection with the Frederik's Hospital (the University School of Medicine).

The Red Cross Society has a bureau which supplies nurses for private cases, and for these there is much demand, especially in the provinces. This Society's nurses are employed at the military lazarets in time of war, and once, during the Russo-Turkish War

of 1877-78, they were sent on foreign service in connection with the Red Cross Societies of other countries. The Society conducts ambulance classes, under the supervision of eminent surgeons, for the instruction of the police, naval candidates, and others. This system of lectures, either by the Red Cross or by other societies, has become pretty general and has extended to the provinces.

ORGANISATION OF THE DANISH CIVIL MEDICAL SERVICE.

This service is under State control, and is administered by the Supreme Council of Health or Royal Board of Health, acting under the Ministry of Justice. The Council consists of ten physicians and two pharmacists nominated by the Crown, and is presided over by one of the former. The services of the members are voluntary and unpaid. The Council is charged with the supervision of public medical charities, the health service, quarantine, midwifery, pharmacy, public vaccination, and the civil medical service proper. The service constitutes a State-paid body of medical men, who are divided into two classes—physicians and district doctors. Their duties are practically the same, but the physicians occupy the higher standing and have greater authority. They act as a medium between the Supreme Council and the prefects. The district doctors attend all epidemic cases, and frequently act as parish doctors. All medical practitioners in the provinces must furnish an annual report to the physicians, through the district doctor of their Commune. The medical practitioners in Denmark number 731. The pharmacists are an organised body, and none are allowed to practise before they have passed a qualifying examination entitling them to follow this calling. Since 1842 pharmacies have not been permitted to be regarded as personal property, and on the death or retirement of the occupier they are offered to candidates for competition. Pharmacies established previous to 1842 retain all privileges existing under the old law, and are the personal property of the owners. The pharmacies are annually visited by a Government inspector.

ADMISSION OF PATIENTS INTO THE HOSPITALS.

Previous to the year 1871, the admission of patients into the hospitals of Denmark was merely a question of formalities. Since that date the public charities of Copenhagen have adopted a uniform system of admission. The new regulations are strictly

humane, but include restrictions not previously recognised. The Communal doctors (of whom there are twenty-four) visit the patients in their own homes, after which they meet the Inspectors of Public Charities, and decide with them as to the fitness of applicants for admission into the hospitals. As a precaution against abuse, patients treated gratuitously in Danish hospitals are regarded as objects of common charity, and are deprived of their political rights.

The Prefecture of Frederiksborg has its own system for the admission of patients, and this applies to each of the five hospitals appertaining to it. Everyone domiciled within the prefecture and contributing to its rates is eligible for admission into any one of the institutions, under ordinary conditions, for a term of three months, or he can send his family or servants there, all expenses being paid out of the rates. Patients suffering from venereal or contagious diseases are all chargeable to the community.

PATIENTS' PAYMENTS.

In Denmark the very poor are admitted free into hospitals which have beds especially endowed for the purpose, or, when this is not the case, the commune to which the patient belongs defrays the expenses. Paying patients are charged proportionately according to their circumstances, and reductions are made in the case of members of clubs and other sick societies. At the Royal Frederik Hospital in Copenhagen the scale of patients' payments is as follows: (1) in the general wards, Kr. 1.20 per diem; (2) in the smaller or single wards, if resident in Copenhagen, Kr. 4 per diem; (3) in these wards if resident outside Copenhagen, Kr. 7 per diem.

COPENHAGEN.

Copenhagen has always been in the van of all hospital progress in Denmark. In 1684, when the provinces possessed no more adequate institutions for the treatment of the sick than the so-called infirmaries, there was already a hospital in Copenhagen. There are now numerous charitable institutions in the city, including nine hospitals which chiefly owe their existence to the munificence of private benefactors. The Frederik Hospital, for instance, has a landed capital of about £105,011, drawn from bequests and donations, and a residuary capital of about £22,338 destined for the

provision of free beds. The General Hospital possesses a capital of about £53,358. The Children's Hospital, the Deaconesses' Hospital, and the Hospital for Chronic Cases have all been built and are maintained by private munificence. The Commune of Copenhagen has done a great deal towards the isolation of contagious diseases and epidemic cases, at a considerable cost. There is provision for the sick in the capital at the rate of one bed to every 114 of the population. These numbers bear a favourable comparison with those of other cities, London possessing one bed for every 387 of the population, Berlin one bed for every 275, Paris one bed for every 232, and Vienna one bed for every 138 of the population.





CHAPTER XX.

FRANCE.

HISTORY.

Historical Notes on the French Hospitals, considered especially from the point of view of Management and Legislation.



RIOR to the Revolution of 1789 the French hospitals, then in a very imperfect state of organisation, had an existence for the most part quite independent of the State, and were not subject to the general system and Government supervision by which they are all connected at the present day with the central board of public charity at the Ministry of the Interior. In the provinces more particularly, these institutions, which were for the most part possessed of fairly large means, were managed by religious corporations of both sexes, who regarded themselves as their proprietors and disposed of the hospital funds according to their own inclinations. In this way the funds arising from bequests and donations intended by the donors for the maintenance of the poor and sick served also to maintain works of piety absolutely independent of hospital management.

Such were the abuses relative to the administration of the hospitals in 1789 that the citizens had unanimously demanded of the deputies sent to the National Assembly that radical changes should be effected in the hospital system, and especially in the mode of administration by the religious corporations of the property of the poor and sick.

We have thought it advisable to set forth the condition of the

charitable institutions of Paris prior to the Revolution. The following account, though referring to the capital only, will give an idea of what went on throughout the length and breadth of France, although the hospitals of Paris had always been more numerous, better organised, and better governed than those of the provinces.

The Hospitals and Charitable Institutions of Paris, from their Foundation to the year 1789.

In 1789 the control of the most important charitable institutions was vested in two principal boards of management—the committee of the Hôtel-Dieu and the committee of the General Hospital. Besides these two chief boards there were a considerable number of hospitals, almshouses, and other charitable institutions which were managed by separate boards, subject to special regulations, and for the most part the property of corporations or religious congregations.

Under the jurisdiction of the committee of the Hôtel-Dieu were -- the Hôtel-Dieu properly speaking, including the convalescent home attached to the institution ; the hospital of St. Louis ; the Home for Incurables ; the hospital of Sainte-Anne ; and also several minor offshoots in town and country, such as general stores, rural retreats, country homes for nuns, and so on. Although subject to the same board of management, the revenues of the Home for Incurables were quite distinct from those of the Hôtel-Dieu.

Until the sixteenth century the Hôtel-Dieu, the foundation of which appears to date back to the seventh century, was governed in all matters spiritual and temporal by the chapter of Notre-Dame. In 1505 the temporal concerns of the Hôtel-Dieu were entrusted to lay governors, eight in number, selected from the leading citizens of Paris by the mayor and aldermen and appointed by the Parliament. Such was the appointment of the committee of the Hôtel-Dieu. In 1654 the number of directors was raised to twelve. In 1690, by letters patent issued in January and registered in Parliament on the 6th of February, Louis XIV. made some additions to the lay governors so as to form what is known as the grand committee. The additional members were the Archbishop of Paris, former presidents of Parliament, of the taxation court, and of the court of alms, the commissioner of police, and the mayor of Paris. Directors were nominated for election by the committee in proportion to the vacancies.

The General Hospital, founded by letters patent in 1656, was

managed by a board similar in constitution to that of the Hôtel-Dieu. It comprised the almshouses of Notre Dame de Pitié, la Salpêtrière, and Bicêtre ; the Foundling Hospital incorporated with the General Hospital in 1670, and comprising the lying-in hospital situated in the Rue Neuve Notre-Dame and the house in the Faubourg Saint-Antoine ; and the hospital of the Saint-Esprit incorporated in 1680 with the Vaugirard almshouse and the Scipion establishment.

The revenues of the Foundling Hospital were not amalgamated with those of the General Hospital, and were augmented in 1772 by the estate of the Hospital of the Enfants-Rouges. The amalgamation of the property of the hospital of Saint-Jacques-aux-Pèlerins with that of the Foundling Hospital was also decreed by letters patent in May 1781, but some lawsuits arose, and the Revolution broke out before this amalgamation was effected.

After these two principal groups of charitable institutions mention ought to be made of the "Grand Bureau des Pauvres," founded under Francis I. in 1544, which was of considerable importance at the time of its foundation, but decreased greatly in consequence of the organisation of the General Hospital. The hospital of the Petites-Maisons was an offshoot of the Grand Bureau des Pauvres.

Among the institutions governed by special regulations were the Charité, administered by the brethren of Saint-Jean-de-Dieu ; the Neckar and Cochin hospitals, both of recent foundation ; the hospital of Sainte-Cathérine, the oldest house of the kind in Paris after the Hôtel-Dieu ; the Saint-Gervais and Trinité hospitals ; the almshouse of the Cent-filles, or La Providence ; the houses of the Sisters of Charity in the Place Royale, Rue Mouffetard, Roquette, and Saint-Mandé ; the Saint-Sulpice orphanage ; the hospital of l'Enfant Jésus ; and many less important institutions. Finally, side by side with these hospitals intended for the treatment of patients, and of these almshouses open to the aged and infirm and to foundlings, there were in operation in almost every parish, under the direction of the parish priests, "bureaux de charité," or charity boards wholly distinct from one another, which supplemented the too restricted action of the Grand Bureau des Pauvres. Such were the charitable institutions of the city of Paris at the time of the Revolution. Their means were considerable, but owing to the lack of unity of administration they did not do all the good they might have effected.

Charitable Institutions in France from 1789 to 1801.

At the very outset of the Revolution the question of hospital reform, which had already been under discussion for several years, presented itself afresh and with greater urgency. The records of the National Assembly contained the prayer uttered by a large number of citizens for radical changes in the administration of the hospitals, and in the application of their property. On the 22nd of December, 1789, the National Assembly issued a decree which received the Royal sanction in January 1790, charging the departmental governments, subject to the king's authority, with the duty of inspecting and improving the administration of the hospitals, Hôtel-Dieu, charitable institutions and offices, prisons, gaols, and houses of correction. By thus subjecting all the hospitals to one common authority, this decree abolished the independence of the old hospital administrations, and put a stop to the isolation one from another in which they had previously existed. In this lies one of the most important reforms effected by the Revolution in hospital administration.

On the 11th of April, 1791, a resolution appeared by which the direction of the Paris hospitals was entrusted to a committee of five members, and on the 13th of April the Attorney-General as commissioner of the department notified the resolution to the governors of the Hôtel-Dieu and the General Hospital. On the 15th of April these governors accordingly resigned their office into the hands of the departmental committee.

Decrease in the Revenues of the Paris Hospitals.

Almost simultaneously with the abolition of the hospital administrations there disappeared one of the most fruitful sources of hospital revenue under the old system. The law of the 22nd of August, 1791, did away with the tolls and privileges of the hospitals. The management of the Paris hospitals ceased to belong to the department, and was taken over by the commune of Paris, which absorbed all administrative duties in itself. But on the 1st April, 1794, a decree of the National Convention replaced the six boards constituting the executive by twelve committees, one of which was entrusted with public relief. Pending the formation of these committees the departmental government reassumed provisionally the management of the hospitals. It was under this régime that the law of the 11th of July, 1794, was passed, assimilating hospital property

with the national wealth and rendering it liable to alienation, the maintenance of the unfortunate of the population devolving upon the State. The sale of hospital property was, however, deferred by the law of the 26th of August, 1795. Upon the organisation of the twelve committees, the law of the 29th of August, 1794, vested the supervision of hospitals in the committee for public relief; the directors appointed by this committee to administer the hospitals were installed on the 23rd of September, 1794.

The decree of the 2nd of October, 1795, placed the direction of the hospitals among the functions of the Ministry of the Interior. At the same period the law of the 24th of October, 1795, put a complete stop to the sale of hospital property, and shortly afterwards the law of the 7th of October, 1796, ordered the restitution of almshouse property which had not been sold, and restored the supervision of these establishments to the central government of the department.

*The Charitable Institutions of Paris, from 1801 to the
Revolution of 1848.*

The organisation introduced by the law of the 7th of October, 1796, was designed for the hospital foundations of every commune in France, but the administration of public relief in Paris required a special organisation. A consular decree of the 17th of January, 1801, vested the control of the hospitals and civil almshouses of Paris in a general council, assisted by an administrative committee. The Prefect of the Seine was appointed president *ex officio* of the general council, and the prefect of police an *ex-officio* member of the council. The consular decree of the 19th of April, 1801, incorporated into the functions of the general council the administration of domiciliary relief in the city of Paris which had already been organised by a decree of the executive government dated the 5th of May, 1796, creating in each district a charitable guild, composed of twelve members at least and twenty at most, with a general board of forty-eight members.

The administrative committee, the foundation of which dated back to the law of the 7th of October, 1796, was at first composed of five members; this number was subsequently raised to eight after the incorporation of relief administration into the duties of the general council of almshouses; finally there were six, including the general secretary, at the date of the February Revolution. The members of the administrative committee were salaried, and were

appointed by the Minister of the Interior on the presentation of the general council and the motion of the Prefect. Thus the administration which obtained from 1801 to 1848 consisted of an executive committee with a general council at its head.

Charitable Institutions from 1848 to 1888.

On the 26th of February, 1848, Citizen Thierry, a member of the municipal council, was instructed by the provisional government to organise the service of civil hospitals and almshouses. The general council of the almshouses was dissolved, but the administrative committee was maintained. Citizen Thierry was authorised to associate Citizens Voillemier and Dumont with himself. Their administration lasted until the 8th of February, 1849, the date of the installation of the director appointed by the law of the 10th of January, 1849. This law reorganised the administration of the "Assistance Publique" in Paris, and vested the powers of the old general council of almshouses in a director assisted by a supervising committee, the composition of which was determined by the governmental decree dated the 24th of April, 1849.

The domiciliary relief service at Paris, incorporated with the almshouses in 1801, was organised by decrees from the Ministry of the Interior dated the 28th of May, and 30th of September, 1801, and modified at various times; decrees from the Minister of the Interior dated the 12th of August, and the 28th of October, 1813; a royal order dated the 2nd of July, 1816, and a decree of the Minister of the Interior dated the 19th of July, 1816; a royal order of the 29th of April, 1831, and a decree of the Minister of the Interior dated the 24th of September, 1831; a decree issued by the director of the administration of public charity dated the 20th of April, 1853, and sanctioned by the prefect, specially organised the domiciliary treatment of patients. In the absence of any regulation of the public government with regard to domiciliary relief, prescribed by the law of the 10th of January, 1849, this service was governed by a decree of the director of the administration of public charity, issued on the 20th of March, 1860, and approved by the prefect. This decree was successively modified in several of its clauses by the decrees dated the 23rd of February, 1877, and the 15th of February, 15th of March, 9th and 31st of July, and the 30th of October, 1879. The regulation of 1860 was finally replaced by the decree of the 12th of August, 1886, supplemented by the decree of the Minister of the Interior dated the 25th of February,

1887, which lays down the rules for the competitive examinations for the post of medical officer to the charity boards.

Until 1867 the lunacy service of the Department of the Seine had been entrusted to the administration of public charity in Paris, but after that date it passed over to the Department of the Seine.

In 1886 a decree promulgated on the 4th of November, vested a general direction of public charity in the Ministry of the Interior, which has had the effect of centralising in that Ministry all the services relative to hospitals, and provident and charitable works. This service comprises four boards:—1st board: National charitable institutions, deaf mutes and the blind, lunatic asylums, poor-houses and departmental asylums; 2nd board: Pauper children, protection of infants, maternal aid societies, and infant asylums; 3rd board: Almshouses and hospitals, private charitable institutions, charity boards, and pauper sanitation; 4th board: Mutual aid societies, sick clubs, and pawn-shops. The inspection of charitable institutions, first established by a ministerial decree of the 20th of June, 1828, is now organised by the decrees of the 31st of March, 1883, and the 28th of February, 1887.

MANAGEMENT.

Administration of the Hospitals of Paris.

French hospitals throughout the length and breadth of the Republic are subject to one uniform administration settled by the law of the 7th of August, 1851, by which are determined not only the conditions for the admission of patients, but the entire administrative working as well. This law of 1851 has been supplemented by two others promulgated in 1873 and 1879 respectively, which determine the constitution of the committees charged with the administration of the hospitals in each commune. The French hospitals, therefore, are administered by committees identically constituted for every commune, with the single exception of the city of Paris. These administrative committees are consequently an important element in the management of the hospitals, being what we may term the direct or local government, while side by side with this administration by the committees there is also municipal government.

The municipal councils of every French commune play a

direct part in the administration of the hospitals and charitable institutions. The following are their principal duties: they are commissioned to accept donations and bequests made to the hospital establishments; to authorise the establishments to make purchases, exchanges, or alienations of property; to enter into law-suits, agreements, and so forth; and to examine and approve when necessary the budgets and accounts of the hospitals. Finally, the State, or central administration of public charity, intervenes in the control of hospital property through the medium of the prefects of each department.

We reproduce here the most essential features of the law which regulates the admission into, and administration of, hospitals for the whole of France:—

I.—ADMISSION INTO ALMSHOUSES AND HOSPITALS.

Art. 1.—When any individual deprived of all means falls ill in a commune, no conditions of domicile can be exacted for his admission into the hospital existing in the commune.

Art. 2.—A special regulation, issued in conformity with the last paragraph of article 8 of the present law, shall determine the conditions as to domicile and age necessary for admission into every almshouse intended for the aged and infirm.

Art. 3.—Sick and incurable paupers of communes having no hospital establishments, may be admitted into the almshouses and hospitals of the department designated by the general council at the instance of the prefect, according to a daily rate agreed upon by the prefect with the committee upon almshouses and hospitals.

Art. 4.—Communes desiring to benefit by the advantages of article 3 shall bear the necessary expense for the treatment of their sick and incurable. The department, however, under circumstances and in a proportion determined by the general council, shall have power to assist communes whose means may be inadequate. In cases where the revenues of an almshouse or hospital permit of it, the administrative committees are authorised to admit into vacant beds the sick or incurable of the communes without exacting from them the daily rate fixed by article 3.

Art. 5.—The administrative board of almshouses and hospitals can always sue for redress if necessary from the members of the family of the sick, aged, or incurable person, designated by articles 205 and 206 of the Civil Code. Communes to which articles 3 and 4 of the present law apply, enjoy the same rights.

II.—ADMINISTRATION.

Art. 6.—A regulation of the public government, issued within six months from the date of the promulgation of the present law, will determine the constitution of the administrative committees of almshouses and hospitals.

Art. 7.—The administrative committee is instructed to direct and supervise the service, both internal and external, of hospital establishments.

Art. 8.—The committee of almshouses and hospitals regulates by its decisions the following matters : the method of administering the property and revenues of hospital establishments ; the terms of leases and contracts of such property, provided the same do not hold good for more than eighteen years for property in the country and more than nine years for other property ; the method and terms of contracts for equipment and maintenance, the duration of which is not binding for more than one year ; and works of all kinds of which the expense is under £120. Every decision upon any one of these subjects is executory, provided the prefect has not annulled it within thirty days after official notification thereof, either officially for some infraction of the law or of some regulation of the public government, or at the demand of some interested party. The committee also, but subject to the sanction of the prefect, makes regulations for the internal and external service, for hygiene, and for the contracts to be entered into with the hospital communities for purposes of the service.

Art. 9.—The committee resolves upon the following matters : the budgets, accounts, and in general all the receipts and expenses of hospital establishments ; the purchase, exchange, and alienation of properties belonging to these establishments, their appropriation to the service, and generally everything in which their preservation and improvement is involved ; the plans of building works, whole-sale repairs or demolitions of which the cost is not more than £120 ; the terms or specifications of contracts for work and agreements for furnishing and maintenance which are not valid for more than one year ; legal actions and arrangements ; the investment of funds and loans, and the acceptance of donations and bequests.

Art. 10.—The resolutions detailed in the preceding article are submitted to the opinion of the municipal council and as regards powers follow the same rules as the resolution of this council. Nevertheless alienation of real estate constituting the endowment

of almshouses and hospitals can only take place with the consent of the municipal council.

Art. 11.—The president of the committee of almshouses and hospitals may always in his protective capacity accept donations and bequests made to charitable institutions, in virtue of the resolution of the committee. The decree of the executive or the decision of the intervening prefect shall take effect on the day of such acceptance.

Art. 12.—The accounts are subject to the same rules as those of the communes.

Art. 13.—The receipts of hospital establishments, for which the laws and regulations have ordained no special mode of recovery, are effected upon certificates drawn up by the mayor at the instance of the administrative committee. These certificates are executory as soon as they have been signed by the sub-prefect. Objections, when the matter is beyond the jurisdiction of the ordinary courts, are tried as summary cases, and the administrative committee can there oppose them without authority from the council of the prefecture.

Art. 14.—The committee appoints its secretary, bursar, physicians, and surgeons, but can only dismiss them with the prefect's approval. The collectors are appointed by the Minister of the Interior, on the proposition of the committees of almshouses and hospitals and the recommendation of the prefect. When the revenues of hospital establishments do not exceed £1,200 the duties of collector are always performed by the communal collector. This provision does not apply to the actual incumbents. In every case the committee of almshouses and hospitals exercises, with respect to the collector of these establishments, the rights vested in the municipal council with respect to the communal collector.

Art. 15.—The committee, together with the municipal council, and subject to the approval of the prefect, shall have power to negotiate by mutual agreement or by contract for the supply of food and articles of consumption necessary for hospital establishments.

Art. 16.—When a commune possesses no almshouses nor hospitals, or when they are inadequate, the municipal council shall have power to contract with a private establishment for the maintenance of sick and aged persons, after having consulted with the committee of almshouses and hospitals, which will be instructed to watch over the execution of the contract entered into with the

private establishment. The contracts must be submitted to the approval of the prefect.

Art. 17.—The committee of almshouses and hospitals shall have power, subject to the same approval, and by complying with the terms of article 5, to convert a portion of the revenues pertaining to the almshouses, but only to the amount of one-fifth, to annual domiciliary relief in favour of aged or infirm persons in the charge of their families.

Art. 18.—The foregoing provisions shall in no wise prejudice the rights of rural communes over the beds of almshouses and hospitals of another department, nor any rights whatever resulting from foundations made by departments, communes, or private individuals, which must always be respected.

Art. 19.—All provisions contrary to the present law are hereby and for ever abrogated.

Art. 20.—The present law in no way detracts from the law of the 10th of January, 1849, upon the organisation of public charity in the city of Paris.

LAW RELATING TO THE APPOINTMENT OF MEMBERS OF THE COMMITTEES OF ALMSHOUSES, HOSPITALS, AND CHARITY BOARDS. 5TH OF AUGUST, 1879.

Articles 1, 2, 4, and 5 of the law of the 21st of May, 1873, relating to the administrative committees of almshouses and charity boards, are abrogated and replaced by the following :—

Art. 1.—The administrative committees of almshouses and hospitals and of charity boards are composed of the mayor and six renewable members. Two members of each committee are elected by the municipal council. The four other members are appointed by the prefect.

Art. 2.—The number of renewable members may, on account of the importance of the institutions, or of local circumstances, be increased by a special decree issued upon the recommendation of the council of State. In this case the increase shall consist of two members at a time, in order that the right of nomination may be exercised in an equal proportion by the municipal council and the prefect.

Art. 4.—The delegates of the municipal council follow the fortunes of that assembly as regards the duration of their commission ; but in case of the suspension or dissolution of the municipal

council this commission is protracted until the date of the appointment of delegates by the new municipal council. The other renewable members are appointed for four years, one quarter of the committee retiring every year. Retiring members are eligible for re-election. If a bye-election occurs during the year, the duties of the new member cease at the date at which the duties of the member whom he has replaced would have ceased. Members are ineligible, or are dismissed absolutely, who are in any one of the conditions of incapacity provided for by the electoral laws. The election of delegates of the municipal council is by ballot, with the absolute majority of votes. After two ballots the relative majority is sufficient, and in case of an equal division of votes, the elder candidate is elected.

Art. 5.—The committees may be dissolved and their members dismissed by the Minister of the Interior. In case of dissolution or dismissal the committee shall be replaced or the vacancies filled up within a month. The delegates of the municipal council shall not, if dismissed, be eligible for re-election within a year. In case of complete renewal, or fresh creation, the members whom the first article leaves to the appointment of the prefect shall at his instance be appointed by the Minister of the Interior. The renewal of one quarter of the committee shall be determined by lot at the first session of installation.

SUMMARY DESCRIPTION OF THE HOSPITALS OF PARIS.

Description of the Hospitals of Paris.

The general administration of public relief at Paris comprises (1) the central administration; (2) hospital establishments subdivided into twenty-three hospitals, one sanatorium with a central office for admission, five almshouses, three retreats, and eleven endowed foundations; (3) six establishments of general utility, and a special institution, to wit an anatomical theatre; (4) the domiciliary relief service provided for by twenty charity boards and fifty-five refuges. There are also five hospital establishments of trifling importance dependent upon various charity boards. And (5) there is the pauper children service, with thirty agencies and a reformatory school. There are also three municipal schools for male and female hospital attendants, with a midwifery school attached to various hospital establishments.

Central Administration.

The central administration is situated at No. 3 Avenue Victoria, where the director and general secretary live. It constitutes the head-quarters of the central service, which is divided into four portions. It comprises various services and offices distributed as follows :—

General secretarial department, comprising: 1st office, medical staff and service; 2nd office, agreements and contracts, material and general business; 3rd office, works and buildings, maintenance and building repairs; and lastly, an archive and library service. To this is entrusted the exchange with the departments and with foreign countries of administrative documents published by the "Assistance Publique."

Another division comprises the hospitals, almshouses, domiciliary relief, and poor-law: 1st office, hospitals and almshouses—administration and supervision of hospitals, almshouses, retreats, and endowed foundations; internal service of these institutions; payment of expenses; inquiries into the position of patients admitted into the hospitals; inquiries prior to admission into the almshouses; issue of certificates for admission into the almshouses, retreats, and foundations; investment of funds by those under their jurisdiction; inquiry into, and verification of, domiciliary relief, and recovery of cost of maintenance. 2nd office, relief—service of domiciliary relief and treatment; special service of investigation into domicile; distribution of bandages; administrative supervision of the twenty charity boards; donations and bequests to the poor of the various arrondissements and parishes; and the Montyon foundation. 3rd office, poor-rate—collection of the poor-rate levied on the price of tickets for theatres, balls, concerts, and so forth.

A third division is devoted entirely to pauper children, while the fourth and last division deals with the administration of property.

We now append the names, with a very brief description, of the principal general hospitals, and show the number of beds they contained during 1889.

GENERAL HOSPITALS.

Hôtel-Dieu,

1 Place du Parvis-Notre-Dame. Number of beds, 559. This hospital owes its origin to various confiscations made in 1865-1866.

The decree is dated the 22nd of May, 1865. During the Revolution this institution was known as L'Humanité.

La Pitié,

1 Rue Lacépède. Number of beds, 709. This was originally (1656) the head-quarters of the General Hospital, and even at that date was set apart for the accommodation of the poor under a regulation of Louis XIII., dated the 27th of April, 1612. It has received various accessions of property up to the present time. After many alterations in its object this institution was ultimately converted into a hospital and a kind of branch of the Hôtel-Dieu, in January 1809. A municipal school for male and female nurses is attached to the establishment.

Charité,

47 Rue Jacob. Number of beds, 516. This institution owes its origin to a bargain made between the brethren of Saint-Jean-de-Dieu and Queen Margaret of Valois in 1606, to a purchase of the fraternity of Saint-Germain-des-Prés in 1637, and to various confiscations in 1861. During the Revolution it was known as the Unity Hospital.

Saint-Antoine,

184 Rue du Faubourg-Saint-Antoine. Number of beds, 677. Originally an abbey of the Order of the Citeaux called Saint-Antoine-des-Champs, founded in the thirteenth century and converted into the Saint-Antoine hospital by a decree dated the 17th of January, 1795. There were various expropriations made in its favour in 1855 (Leyma, Dulac, Hébert, Delepine). During the Revolution this institution was known as the Eastern Hospital.

Necker,

151 Rue de Sèvres. Number of beds, 442. An old convent of Benedictines of Notre-Dame-de-Liesse. This institution was converted into a Hospital in 1776. Mme. Necker undertook the control of it, and styled it the almshouse of the parishes of Saint-Sulpice and Gros-Caillou. During the Revolution it was known as the Western Hospital.

Cochin,

47 Rue du Faubourg-Saint-Jacques. Number of beds, 386. Founded by the Abbé Cochin, curé of Saint-Jacques-du-Haut-Pas,

in 1780, and augmented at various times up to the present. During the Revolution this institution was known as the Southern Hospital.

Beaujon,

208 Rue du Faubourg-Saint-Honoré. Number of beds, 432. Founded by Beaujon, the financial receiver-general, in 1781 for twenty-four orphans, and converted into a hospital by a decree dated the 17th of January, 1795, and enriched in various ways up to the present day. Parliament gave this institution the name of the Roule Hospital.

Lariboisière,

2 Rue Ambroise-Paré. Number of beds, 704. This hospital owes its origin to moneys acquired by the city of Paris between 1847 and 1856.

Tenon,

2 Rue de la Chine. Number of beds, 825. This institution originated in various confiscations and purchases made in 1866, 1867, 1868, and 1869, and settled by a decree dated the 24th of March, 1868.

Laennec,

42 Rue de Sèvres. Number of beds, 628. This hospital was founded in 1635, upon a site belonging to the Hôtel-Dieu, with funds given by Mme. Le Bret, Jean Joullet, and Cardinal La Roche-foucauld.

Bichat,

Boulevard Ney, Bastion 39. Number of beds, 184. An old custom-house appropriated to hospital purposes by a prefect's decree dated the 11th of December, 1882.

Andral,

35 Rue des Tournelles. Number of beds, 100. This was originally a hospital of the Notre-Dame charity, suppressed at the time of the Revolution, and since appropriated successively to a rope-walk for the poor in 1793, to a nurses' directorship in 1867, and to the present hospital in 1880.

Broussais,

Rue Didot. Number of beds, 264. This hospital originated in the old property of the Hôtel-Dieu. There were purchases in the names of Boireau, Dumcsnil, Bertrand and Grisard in 1454, 1456,

and 1487, there was a barter connected with the name of Deshayes in 1841, and the property was appropriated as a hospital in 1883.

SPECIAL HOSPITALS.

By this term are understood those hospitals which only admit certain classes of patients.

Saint-Louis,

40 and 42 Rue Bichat. Number of beds, 859. This hospital was founded by the board of the Hôtel-Dieu on a site belonging to it, and during the Revolution it was known as the Northern Hospital. It is intended for the treatment of skin diseases, and contains beds for patients who are able to pay a daily rate for maintenance.

Midi,

111 Boulevard de Port-Royal. Number of beds, 336. Originally a convent of Capuchins of the Faubourg Saint-Jacques, this institution was appropriated in 1784 to the treatment of venereal diseases. Since 1836 only men have been admitted. There are beds for paying patients.

Lourcine,

111 Rue de Lourcine. Number of beds, 243. This was formerly a house of refuge, which was purchased from the Department of the Seine in 1834 and opened as a hospital in 1836. It is devoted to the treatment of female patients suffering from syphilis. Attached to this institution is a service of sixty beds, reserved for ordinary patients and known as the Hospital of the Rue Pascal.

Maison d'Accouchement,

123 Boulevard de Port-Royal. Number of beds, 338. This was originally a Port-Royal abbey, and was converted into a hospital by a decree dated the 13th of July, 1795. The lying-in hospital is specially intended for the reception of women with child, who go there to be confined. A practical school of midwifery for training midwives is attached to the hospital.

Clinique,

89 Rue d'Assas. Number of beds, 130. This institution was originally built at the joint expense of the town and of the State,

upon a site belonging to the corporation. It was opened in 1881. This hospital, which formerly existed in the place of the school of medicine, has been partially demolished to enlarge the scope of the Medical School. It is used as a special midwifery clinic.

Maison de Santé,

200 Rue du Faubourg-Saint-Denis. Number of beds, 344. Originated by donations from Mmes. Leclère and Chevallier, MM. Marie, Ernest, and André, and the heirs of the Cottier property. This institution was founded in 1802 in the Rue du Faubourg-Saint-Martin, but was transferred in 1816 to its present premises. It is intended for sick and wounded persons who, although unable to secure proper treatment in their own homes, are yet in a position to pay a daily sum for maintenance, of which we shall speak in connection with pay hospitals.

Hôpital des Enfants-Malades,

149 Rue de Sèvres. Number of beds, 593. Origin—an old home of the Filles de l'Enfant Jésus, founded by the Abbé Longuet de Gergy, curé of Saint-Sulpice, in 1732, for the reception of women and girls out of employment. Once a home for orphan girls, this institution was afterwards exclusively reserved for sick children of both sexes between the ages of two and fifteen years, by a decree of the general council of almshouses dated the 18th of May, 1802.

Hôpital de Forges-les-Bains,

Near Paris (Seine-et-Oise). Number of beds, 224. Founded by purchases of Amédée Roussin, Roussin senior and junior, Arnon, Duval, and Lerebour, in 1858. This institution is a branch of the children's hospital, and is especially devoted to the treatment of scrofula.

Trousseau,

89 Rue de Charenton. Number of beds, 463. This institution was founded by the General Hospital in 1674, and a purchase of Lemasson de Lafontaine is dated the 22nd of September of that year. It was formerly known as the hospital of Sainte-Eugénie, and is devoted to sick children.

Hôpital de La Roche-Guyon,

Route de Vernon, near Paris (Seine-et-Oise). Number of beds, 118. Founded by a donation from La Rochefoucauld in 1863. It is a branch of the Trousseau hospital, and only admits sick children.

Hôpital Maritime de Berck-sur-Mer,

Pas de Calais. Number of beds, 710. Founded by State purchases in 1861, 1864, 1869, and Delhomel 1869. This institution receives children from Paris suffering from scrofulous complaints.

METHOD OF ADMISSION OF PATIENTS.

Central Office.

The physicians and surgeons forming the central board, installed in the buildings of the Hôtel-Dieu, are instructed to examine persons applying for admission into the hospitals, and to send them on to institutions with available beds if their condition requires immediate treatment. Other persons presenting themselves at the central office obtain free consultations. The members of the central board also certify the incurability of paupers, that they may be admitted into the almshouses.

ALMSHOUSES AND RETREATS.

By almshouses are meant institutions intended for the reception of aged or incurable paupers or of children without means of subsistence. They are subdivided into almshouses properly so called, and retreats. Admission into the former is free, but into the latter only upon payment of an annual sum or of a capital sum equivalent thereto.

Hôpital de Bicêtre,

At Gentilly, Rue du Kremlin, 1. Number of beds, 3,504—paupers 2,498, infirmary 166, insane wards 840. This was an ancient property of the General Hospital, and in 1656 it received a grant from Louis XIV., and has received various acquisitions since that date. Between 1823 and 1885 this institution was known as the almshouse for aged men. Attached to it is a municipal school for training male and female nurses.

Hôpital de la Salpêtrière,

47 Boulevard de l'Hôpital. Number of beds, 4,611—paupers 3,619, infirmary 272, insane wards 720. This was formerly the old General Hospital founded on the 27th of April, 1656. It received a grant of lands from Louis XIV. in 1653 and has since obtained various acquisitions. Between 1823 and 1885 it was styled the almshouse for aged women.

Incurables,

Ivry, Seine. Number of beds, 2,147—paupers 2,040, infirmary 107. Originated in the Serize purchase in 1851. This almshouse, devoted to incurables of both sexes, has replaced the almshouse for male incurables situated in the Rue du Faubourg-Saint-Martin, now the Saint-Martin military hospital, and that for female incurables in the Rue de Sèvres, now the Laennec hospital.

Hospice de Brévannes,

Seine-et-Oise. Number of beds, 100. Originated in a purchase from Baron Hottinguer, September 19, 1883.

Hospice des Enfants-Assistés,

72 Rue Denfert-Rochereau. Number of beds, 796: in the dépôt 378 pauper children, and 272 in cradles; and 146 rescued, pauper, and morally depraved children. This was formerly an institution of the Oratory and was appropriated for an almshouse for pauper children by a decree dated the 2nd of October, 1794; it has received various acquisitions of property up to the present day.

(1.) Pauper children. Into this department are admitted, from the day of their birth until their twelfth year, foundlings, deserted children, and poor orphans. Immediately after admission the children are sent into the country; new-born infants are entrusted to wet nurses, while those who are older are placed with artisans or farm people.

(2.) Children in the dépôt. The almshouse receives into the dépôt the children of persons admitted as patients into the hospitals or who have been abandoned in consequence of the arrest of their parents, or of sentences passed upon them if the punishment inflicted is to be of short duration.

(3.) Lastly, the almshouse receives country wet-nurses intended for the rescued children.

Hospice de Thiais,

Near Paris. Number of beds, 100. This institution was opened in 1883 upon an estate belonging to M. Mesnard, and is a branch of the almshouse for pauper children appropriated to children confined in the dépôt.

Hospice des Ménages,

13 Rue du Vivier, Issy, Seine. Number of beds, 1,461—paupers 1,391 and infirmary 70. Formerly a property of the hospital of l'Enfant Jésus, this institution was enriched by the Longuet donation in 1752, by the Dumez bequests in 1844, and by the Pédelaborde purchase in 1858. It was formerly situated at 28 Rue de la Chaise in Paris, and was founded in 1557 under the name of Petites-Maisons, upon the site and with the materials of an old leper house. At first lunatics, children and decrepit old men were received there indiscriminately, but in 1801 it was reserved exclusively for married couples and widows.

Hospice de la Rochefoucauld,

15 Avenue d'Orléans. Number of beds, 246—paupers 226, infirmary 20. This was originally an old property of the Charité hospital and received acquisitions of property in 1781, 1820, 1826, and 1827 from Dulion, Giret, Javal, and Destouches. Founded in 1781 by the Brothers of Charity with the title of "Maison Royale de Santé," it was at first intended for invalid soldiers and ecclesiastics. It became a hospital during the Revolution, and in 1801 was converted into a retreat. This institution, which was previously styled Maison de Retraite at Montrouge, received its present name from a decree of the Minister of the Interior, dated the 11th of January, 1822.

Sainte-Périne,

65 Rue de la Municipalité. Number of beds, 289—private patients 255, and infirmary 34. This institution, formerly situated in the Rue de Chaillot, originated in a purchase of Beauvan and Beaufremont in 1858. The idea of the establishment belongs to M. de Chamousset and dates back to 1801, but the scheme having failed, the Government intervened and by a decree of the 10th of November, 1807, the house was placed under the control of the Almshouse Commission.

ENDOWED FOUNDATIONS.

These are establishments having the character of hospitals, almshouses, or asylums, for the expenses of which provision is made by private endowments in conformity with the wishes of their founders, and the government of which is entrusted to the charge of the Assistance Publique, which arranges their budgets and makes good any deficit which may arise.

Hospice Saint-Michel,

(Boulard foundation) 10 Avenue du Bel Air, Saint-Mandé, Seine. Number of beds, 22—ordinary inmates 20, infirmary 2. This institution originated in various purchases made in 1825 by the executors of M. Boulard (Michel Jacques), an old Paris merchant. It was opened on the 24th of August, 1830, and is intended to receive old men seventy years of age.

Hospice Lenoir-Jousserain,

10 Avenue du Bel Air, Saint Mandé, Seine. Number of beds, 142—inmates 132, infirmary 10. The site was sold by the Boulard foundation to the Lenoir foundation in 1876. The establishment, which receives aged male and female paupers of the city of Paris, was founded by the liberality of the widowed Mme. Lenoir-Jousserain.

Hospice de la Reconnaissance,

(Brézin foundation) Garches, Seine-et-Oise. Number of beds, 330—inmates 314, infirmary, 16. Founded by the Brézin bequest in 1828, and opened in 1833.

Hospice Devillas,

44 Grande-Rue, Issy, Seine. Sixty-five beds. Originally a property of the Maison des Ménages and founded by M. Devillas in 1832. It was opened on the 25th of July, 1835, and is devoted to the reception of invalid paupers of both sexes who are at least seventy years of age. The charity boards of the town of Paris possess the right of nomination to four-fifths of the beds, and the rest are at the disposal of the two consistories of the Reformed Church.

Maison Chardon-Lagache,

1 Place d'Auteuil. Number of beds, 165—inmates 150, infirmary 15. The ground was originally acquired by the purchase of Beauvan and Beaufremont in 1858, but was ceded gratuitously to the Chardon-Lagache foundation in 1863.

Pavillon Moiana,

104 Faubourg Saint-Antoine. Twenty beds. It was founded on a plot of ground belong to the Saint-Antoine hospital, of which it was formerly a part, with a bequest from M. Moiana in 1876.

Orphelinat Riboutté-Vitallis,

Forges-les-Bains, Seine-et-Oise. Forty beds. Founded in accordance with a bequest from M. Vitallis, and opened as an orphanage in 1882.

Fondation Rossini,

16 Rue Mirabeau. Founded on a site taken from the Sainte-Périne institution with a legacy from the widowed Mme. Rossini, 1878.

Fondation Galignani,

Neuilly, Seine. The ground for this establishment, which is to have 120 beds, was bequeathed by M. Galignani in 1882.

Hospice Debrousse,

148 and 150 Rue de Bagnole. Two hundred beds. This modern retreat for old people owes its foundation to the generosity of the Baroness Alquier (*née* Debrousse), who in 1883 bequeathed for the purpose a sum of eight millions of francs, which has been increased by accumulated interest. The site selected is that of a country house which belonged to the Regent, and near the entrance to the beautiful park there still remains a small pavilion belonging to the time of Louis XV. The hospice is built entirely according to modern ideas, and does the greatest credit to the architects, MM. Bernard and Dejermeaux, whose design was selected in competition. Three principal buildings, connected by galleries having glazed roofs, encircle a central garden; one block is reserved for women, another for men, whilst

the central block contains the general offices and a very comfortable and handsome dining-room. The dormitories contain fourteen beds each, but sixteen chambers having two beds each are reserved for married couples. In the centre of the park a pretty pavilion contains the entertainment and lecture hall. Everything is bright and modern. The medical staff consists of a physician and a provisional house-surgeon. By the express wish of the testatrix the supervision is entrusted to nuns.

Asile Lambrechts,

Rue de Colombes, Courbevoie, Seine. Number of beds, 110—40 in the asylum for aged men, and 70 in that for children. Originated with acquisitions from Michel Moreau and the Bruneau heirs, in 1843—1876. This asylum is administered by the governing body of the foundation, and admits blind paupers thirty years of age at least, aged paupers upwards of seventy years old, infirm men from the age of fifty, and aged infirm women.

Reformatory School,

Yzère, Allier. This was an old Benedictine monastery, purchased by the State in 1812, appropriated for a small school in 1822, and placed at the disposal of the Ministry of Public Instruction in 1880; it was leased by the State with option of purchase to the Department of the Seine in 1885. This school is set apart for girls, foundlings, and reprobates.

PROVISION FOR REPROBATE CHILDREN.

Technical Schools.

(1.) Villepreux School of Horticulture, originated in purchases of Barbé on the 20th of February, 1882, of Deschamps on 31st of August, 1882, and of Leyssale-Cumont on 28th of December, 1883.

(2.) Alembert school of cabinet-making, Montévrain, Seine-et-Marne, originated in a purchase of Cère on the 23rd of February, 1881.

(3.) Alençon school, Orne, for teaching printing, carpentry, saddlery, and lock-making, leased with option of purchase to M. Verdier in 1885.

*Table showing the Total Number of Patients in the Medical Wards
of the Paris Hospitals on January 1, 1889.*

Patients on January 1, 1889.					
Name of Institution.	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
Hôtel-Dieu	289	260	7	5	561
Pitié	307	263	6	9	585
Charité	191	193	10	18	412
Saint-Antoine	326	263	13	11	613
Necker	150	130	10	8	298
Cochin	118	77	1	1	197
Beaujon	127	123	7	5	262
Lariboisière	259	292	15	14	580
Tenon	340	295	15	16	666
Laennec	261	254	7	8	530
Bichat	70	54	...	3	127
Andral	69	33	...	...	102
Broussais	105	96	...	...	201
Temporaire (Rue Pascal) ...	...	40	...	...	40
Totals ...	2,612	2,373	91	98	5,174
Saint-Louis	318	210	32	30	590
Midi	172	...	...	...	172
Lourcine ... ..	...	128	...	3	131
Accouchement ... ..	...	100	32	32	164
Clinique ... ..	...	57	18	19	94
Aubervilliers	20	52	...	...	72
Totals ...	510	547	82	84	1,223
Enfants-Malades ... ..	...	...	211	237	448
Forges ... ..	...	...	86	81	167
Trousseau ... ..	...	...	155	169	324
Berck-sur-Mer ... ..	...	...	281	220	501
La Roche-Guyon ... ..	...	...	92	...	92
Totals ...	...	...	825	707	1,532
Combined Hospitals ...	3,122	2,928	998	889	7,929
Maison de Santé	74	33	...	...	107
Grand Totals ...	3,196	2,953	998	889	8,036

*Table showing the Number of Patients in the Surgical Wards
of the Paris Hospitals on January 1, 1889.*

Name of Institution.	Patients on January 1, 1889.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
Hôtel-Dieu	148	84	...	2	234
Pitié	110	55	...	...	165
Charité	77	55	1	...	133
Saint-Antoine	97	46	...	...	143
Necker	123	48	...	...	171
Cochin	85	60	17	12	174
Beaujon	121	61	1	2	185
Lariboisière	160	93	...	...	253
Tenon	124	57	4	5	190
Laennec	62	33	...	...	95
Bichat	35	35	1	...	71
Andral ... ..	...	...	...	...	...
Broussais	61	...	...	...	61
Temporaire (Rue Pascal) ...	...	18	...	...	18
Totals ...	1,203	645	24	21	1,893
Saint-Louis	150	71	...	...	221
Midi	71	...	...	...	71
Lourcine ... ..	...	54	4	3	61
Accouchement ... ..	...	18	...	...	18
Clinique ... ..	...	9	...	...	9
Aubervilliers ... ..	...	...	...	...	...
Totals ...	221	152	4	3	380
Enfants-Malades ... ..	...	...	47	33	80
Trousseau ... ..	...	...	46	45	91
Totals ...	...	...	93	78	171
Combined Hospitals ...	1,424	797	121	102	2,444
Maison de Santé	31	18	...	...	49
Grand Totals ...	1,455	815	121	102	2,493

Table showing the Number of Patients in the Almshouses and Retreats of Paris on January 1, 1889.

Names of Institutions.	Patients on January 1, 1889.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
<i>Asylum for the Insane :</i>					
Males	535	...	308	...	843
Females ... ..	...	586	...	118	704
Totals ...	535	586	308	118	1,547
<i>Asylums for the Aged and Infirm :</i>					
Bicêtre	1,887	...	23	...	1,910
Salpêtrière ... ..	...	2,681	...	4	2,685
Ivry	1,015	1,007	...	...	2,022
Brévannes	66	26	..	...	92
Totals ...	2,968	3,714	23	4	6,709
<i>Retreats for the Aged and Infirm :</i>					
Ménages { Dormitories ...	229	301	...	...	530
Rooms	260	530	...	...	790
La Rochefoucauld	106	119	...	...	225
Sainte-Périne	45	180	...	...	225
Totals ...	640	1,130	...	...	1,770
<i>Endowed Foundations :</i>					
Boulard (Saint-Michel)	20	...	...	...	20
Brézin (La Reconnaissance)	311	...	...	...	311
Devillas	31	32	...	...	63
Chardon- { Dormitories ...	34	60	...	...	94
Lagache { Rooms ...	13	37	...	...	50
Lenoir-Jousserain ...	65	66	...	...	131
Totals ...	474	195	...	...	669
<i>Asylum for Children :</i>					
Riboutté-Vitallis ... ..	...	...	37	...	37
<i>Temporary Services of Patients in Asylums :</i>					
	61	166	4	12	243

*Number of Patients in the Almshouses and Retreats of Paris,
on January 1, 1889—(continued).*

Names of Institutions.	Patients on January 1, 1889.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
SUMMARY.					
<i>Asylums, Retreats, Endowed Foundations :</i>					
Insane	535	586	308	118	1,547
Aged and Infirm	4,082	5,039	23	4	9,148
Children ... ..	...	...	37	...	37
Totals	4,617	5,625	368	122	10,732
Patients in Temporary Services	61	166	4	12	243
Grand Totals	4,678	5,791	372	134	10,975

GENERAL ARRANGEMENTS FOR COMMISSARIAT.

The centralisation of the commissariat of the Paris hospitals is one of the points which attract most attention from students of hygiene when they compare it with the system obtaining in America and England.

The Central Store.

There is not a single government, public board, or large working company which does not concentrate its commissariat when it has to distribute great quantities of eatables or articles for use over various points. By centralisation we mean in this case the substitution of wholesale for retail purchase ; the selection of one buyer, instead of submission to many buyers each dealing in his own individual method in a more or less remote sphere ; it means the power of establishing protective conditions beforehand, of determining the standards which are to serve as the bases of supply, and of obtaining security for an efficacious method of receipt ; it also means, by distinguishing the institutions which consume from those which produce or purchase, the possibility of approximation and comparison, of observing the consumption in its legitimate application or its excess, and of combining the unvarying elements of an exact and straightforward system of accounts. In a word,

the system of central stores, when well conceived and well directed, procures these three advantages: economy in expenditure, perfection in service, and a real control over the transactions. These various considerations induced the hospital administration to centralise all their commissariat arrangements in one central store, the foundation of which was determined upon in 1864 and actually accomplished in 1867.

I.

The administration of the Paris "Assistance Publique" has an ordinary budget of from £1,520,000 to £1,600,000. It affords relief in its hospitals to 200,000 patients, in its almshouses to 24,000 aged or infirm, in its charity offices to 200,000 paupers and 100,000 patients, and in the country to 40,000 rescued children. In relation to this vast and interesting host of clients it fulfils very extensive duties, providing them with food, clothing, bedding, linen of all kinds, drugs and maintenance, and appropriating buildings for them; it has to provide for everything, to make sure of purchases, to superintend their execution, and to follow out in all their details the countless and varied operations involved in the control of so large a number of persons.

A few figures taken from the accounts for the year 1887-1888 will give a brief notion of all this: the bread manufactured at the works of the hospital administration occasioned an outlay of £116,920; the wine consumed cost £93,000; meat £134,484; sundry articles of diet £137,564; drugs £61,680; bandages, bedding, linen, and clothing £144,920. Independently of this expenditure, applying more especially to persons, the cost of material in general use also involves a very considerable annual charge. Thus, heating and lighting cost £73,520; washing £28,800; furniture and utensils £33,280; and maintenance of buildings £46,000.

II.

Bread.—For very many years the bread intended for the hospitals and almshouses and for a few special services has been made at the central bakehouse, situated in the Place Scipion. In 1856 the grinding of the corn necessary for the bread was added to the bread factory. The quality of the bread made of corn from the best crops is irreproachable, and this direct method of manufacture is a sure guarantee against false weight and trade adulteration, by which grains of bean or maize or potato lewes are too often

introduced into bread, or by which inferior grain is employed, with the object of reaching the utmost limit of cheapness, from which the public profit hardly at all.

Wine.—The wine is bought at special contract by the central cellar, which prepares the blends with natural wines with the help of expert tasters, and then distributes them to the various institutions in proportion to their requirements.

Drugs.—The drugs intended for the hospitals, almshouse infirmaries, and refuges are prepared at the central pharmacy, situated at 47 Rue de la Tournelle.

Meat.—The central slaughter-house was founded in 1848; it guarantees the provision of the hospitals and almshouses with good meat at a moderate charge. No bullock is consigned for consumption the history and condition of which cannot be certified by the contractor at the time of consignment.

III.

A real step forward was made in 1851 by the institution of a service to provide all commodities sold at the central markets. Instead of the partial purchases made by the stewards of establishments on their own account, the daily requirements of the institutions are centralised as regards poultry, fish, butter, eggs, fresh cheese, fruit, vegetables, and so forth. These commodities are bought wholesale, and, in the case of articles sold in that manner, by public auction, and in the distribution every establishment has assigned to it the quantity for which it applied. Considerable saving has thus been effected, and it has been possible to introduce into the diets of the patients and inmates a variety greatly appreciated by the doctors but hitherto unknown.

For very many years, too, the paupers' spinning-house was commissioned to spin the flax and hemp used in the cloth necessary for the various services, and to weave and bleach them in the manufacturing districts.

In 1850 the central workshop was organised at La Salpêtrière for making and repairing, for destroying old linen and bed-clothes, and preparing lint for dressings. By this system uniformity of measure is obtained, means of action are concentrated, and supervision over and responsibility for the goods are guaranteed. In accordance with a long-expressed wish, labour in almshouses is organised, the idle being occupied, and paupers who are still

able-bodied having the opportunity given them of earning a small peculium. At the same time it puts a stop to the abuse of unduly large workshops in the institutions and of employing convalescent patients.

Milk.—Lastly, in 1864 a central dairy was organised in the outhouses of Bicêtre for the purpose of providing the lying-in departments and wet-nurses with an unfailing supply of unadulterated pure milk.

The system is not confined to these main concentrations. The necessity for improving the methods of supply was so imperative that, from lack of buildings in which the service could be located in the full perfection of unity, and in order to give a wider scope to the system of open contract, several establishments were commissioned to receive and distribute a large number of commodities and articles of diet.

Thus, the central bakehouse received for assignment the supply of vegetables and dried fruits, semolina, vermicelli, dry cheese, oil and vinegar, soap, and candles. The central pharmacy, in addition to its ordinary work, supplied sugar, salt, pepper, wax, sponges, soda, pyrethrum powder, and so on. The paupers' spinning-house formed the centre for materials and articles of linen, bed-clothing, haberdashery, and baby linen for the charity offices. The central cellar was commissioned to supply the various articles of cooperage necessary for the cellars of the institutions. The hospital of Saint-Louis, situated near the Saint-Martin Canal, attended to the purchase and distribution of coal. To the almshouse of the Enfants-Assistés was given the duty of cutting out and making the baby linen for distribution in Paris and the country. Bicêtre had a workshop for making clothes, and another for making boots. At the Brézin foundation there was a workshop for cutting out and making clothing. Lastly, the Ménages almshouse possessed what was called the sales dépôt, that is to say, a store of all the mended furniture and unusable articles obtained with hospital inheritances.

Emergency supplies are not impossible under the central store system, but such a service would not be feasible under it if each establishment were to repudiate the duty of looking forward and claimed to get in its supplies from day to day. The method of centralisation once adopted necessarily involves the careful keeping of the separate stores of each establishment, a watchfulness that takes thought for the morrow and accuracy in the giving of orders ;

in a word, just those simple and somewhat commonplace attentions that we look for in every housekeeper.

With regard to the supplies which it is indispensable to have prepared in advance, certain details are required which the stewards must appreciate and be able to estimate for themselves, but here again it is only a question of care and accuracy. Far from making difficulties for the institutions, the central store has lightened their task to a remarkable extent, apart from the service which it has rendered to the administration by introducing a great saving of expenditure and facilitating the purchase at a moderate price of the immense quantity of goods necessary to provision the hospitals of Paris. Most of the large towns in France, particularly Lyons and Marseilles, have adopted this system of centralising their stores.

DIETARY IN THE HOSPITALS OF PARIS.

The dietary followed in the civil hospitals and almshouses of Paris, and the measures taken for insuring its proper application and regulating the accounts, are governed by the following Regulations:—The consumers in the hospitals are divided into four principal classes:—(1) patients under treatment in the hospitals or almshouse infirmaries; (2) able-bodied and infirm persons admitted as paupers into the almshouses or as private patients into the retreats; (3) the under-officials and servants of all kinds; and (4) bed-ridden men and women.

Article I.—Patients in Hospitals and in Almshouse Infirmaries.

According to the daily prescriptions of the doctors, patients treated in the general and special hospitals and in the infirmaries of almshouses and retreats may be subjected to one of the following grades of diet:—

(1) Rigorous diet; (2) simple or slop diet; (3) soups; and (4) solid diet, which is further subdivided into four grades.

Patients upon Rigorous Diet.

Patients upon rigorous diet receive no nourishment nor slops, nor any kind of nourishing drink whatever.

Patients upon Simple or Slop Diet.

Patients upon simple or slop diet receive in the twenty-four hours :—Adults : thick broth in four portions of twenty-five dessert-spoonfuls ; children : thick broth in four portions of twenty dessert-spoonfuls.

Patients upon Soups.

Patients upon soup diet receive in the twenty-four hours :—Adults : thick broth, two portions of twenty-five dessert-spoonfuls ; thick soup, two portions of thirty dessert-spoonfuls ; wine, one portion of twelve dessert-spoonfuls for men, and one portion of nine dessert-spoonfuls for women ; children : thick broth, two portions of twenty dessert-spoonfuls ; thick soup, two portions of twenty-five dessert-spoonfuls ; wine, one portion of eight dessert-spoonfuls.

The soup is made as follows :—For adults, thirty dessert-spoonfuls of broth and two-thirds of an ounce of paste. For children, twenty-five dessert-spoonfuls of broth and one-third of an ounce of paste.

Patients upon Solid Diet.

Patients upon solid diet are subjected to four dietary grades, and receive the articles and quantities detailed in the tables on pages 485 and 486, divided into three allowances.

Incoming Patients.

Patients do not pay for board for the day on which they are admitted. Those, however, who are considered to be in a condition to take food will receive, upon the private voucher of the doctor, or upon the voucher of the resident medical student if attested by the doctor on the day after admission, the following amount of food :—Thick soup, 30 dessert-spoonfuls for adults, and 25 for children ; bread, 4 oz. for men, $3\frac{1}{2}$ oz. for women, 3 oz. for boys, and $2\frac{2}{3}$ oz. for girls ; wine, 12 dessert-spoonfuls for men, 9 dessert-spoonfuls for women, and 8 for boys and girls ; and boiled meat, 4 oz. (before preparation) for adults, and 3 oz. (before preparation) for children.

Outgoing Patients.

Outgoing patients are entitled to the following food on the day of their discharge :—Thin soup, 30 dessert-spoonfuls for adults, and 25 for children ; bread, 8 oz. for men, 7 oz. for women, $6\frac{1}{2}$ oz. for boys, and 6 oz. for girls ; wine, 24 dessert-spoonfuls for men, 18 for women, and 16 for girls and boys ; roast meat, spiced beef, or

Diet Table for Patients on Solid Diet.

Dsp. = a small dessert-spoon.

Kind of Food	Quantity Allowed.			
	For Adults.		For Children.	
	Before Cooking.	After Cooking.	Before Cooking.	After Cooking.
<i>Patients of the First Grade.</i>				
White bread :				
For males	4 oz.	3 oz.
For females	3½ oz.	2¾ oz.
Wine :				
For males	24 dsp.	16 dsp.
For females	18 dsp.	16 dsp.
First distribution before inspection :				
Milk	25 dsp.	20 dsp.
Morning meal :				
1st. Thick soup	30 dsp.	25 dsp.
2nd. Roast meat	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
Evening meal :				
1st. Thick soup	30 dsp.	25 dsp.
2nd. { Poultry, twice a week	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
2nd. { Roast meat, twice a week	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
2nd. { Fish, twice a week	...	4 oz.	2½ oz.	2¾ oz. 1½ oz.
2nd. { Fresh eggs, twice a week	1 egg	1 egg
<i>Patients of the Second Grade.</i>				
Bread :				
For males	8 oz.	6 oz.
For females	6¾ oz.	5½ oz.
Wine :				
For males	24 dsp.	16 dsp.
For females	18 dsp.	16 dsp.
First distribution before inspection :				
Thin soup	30 dsp.	16 dsp.
Milk	20 dsp.
Morning meal :				
1st. { Thin soup	25 dsp.
1st. { Roast meat, five times a week	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
1st. { Stew, twice a week	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
1st. { Fresh eggs, twice a week	1 egg	1 egg
2nd. { Cooked fruits, once a week	...	4 oz.	3½ oz.	2¾ oz. 2 oz.
2nd. { Dried plums, twice a week	...	2 oz.	9 dsp.	1½ oz. 6 dsp.
2nd. { Milky rice, twice a week	...	¾ oz.	10 dsp.	1½ oz. 5 dsp.
Evening meal :				
1st. Thick soup	25 dsp.
2nd. { Boiled meat, five times a week	...	4 oz.	2 oz.	2¾ oz. 1½ oz.
2nd. { Fish, twice a week	...	4 oz.	2¾ oz.	2¾ oz. 1½ oz.
2nd. { Vegetables in season, twice a week	...	4 oz.	2¾ oz.	...
2nd. { Vegetables in season, five times a week	2¾ oz.	1½ oz.
3rd. { Potatoes in milk, four times a week	...	4 oz.	4 oz.	2¾ oz. 2½ oz.
3rd. { Preserves, once a week	1 oz.
<i>Patients of the Third Grade.</i>				
White bread :				
For males	12 oz.	9 oz.
For females	10 oz.	8 oz.

Dsp. = a small dessert-spoon.

Kind of Food.		Quantity Allowed.			
		For Adults.		For Children.	
		Before Cooking	After Cooking.	Before Cooking	After Cooking.
<i>Patients of the Third Grade—cont.</i>					
Wine :					
For males	...	...	36 dsp.	...	24 dsp.
For females	...	...	27 dsp.	...	24 dsp.
First distribution before inspection :					
Thin soup	...	...	30 dsp.	...	25 dsp.
Morning meal :					
1st.	Thin soup	...	...	...	25 dsp.
2nd.	{ Roast meat, three times a week	4 oz.	2 oz.	2½ oz.	1½ oz.
	{ Tripe, once a week	4 oz.	2½ oz.	2½ oz.	1½ oz.
	{ Spiced beef, three times a week	4 oz.	2 oz.	2½ oz.	1½ oz.
3rd.	{ Vegetables in season, once a week	6 oz.	12 dsp.	4 oz.	8 dsp.
	{ Dried vegetables, five times a week	6 dsp.	12 dsp.	4 dsp.	8 dsp.
	{ Spiced eggs, once a week	...	1½ eggs	...	1 egg
Evening meal :					
1st.	Thick soup	...	30 dsp.	...	25 dsp.
2nd.	{ Boiled beef, six times a week	6 oz.	3 oz.	4 oz.	2 oz.
	{ Fish, once a week	6 oz.	4 oz.	4 oz.	2½ oz.
	{ Fresh vegetables, three times a week	6 oz.	12 dsp.	4 oz.	8 dsp.
3rd.	{ Potatoes, twice a week	6 oz.	18 dsp.	4 oz.	12 dsp.
	{ Milky rice or mulligatawny, twice a week	1 oz.	15 dsp.	½ oz.	2½ oz.
<i>Patients of the Fourth Grade.</i>					
White bread :					
For males	...	...	16 oz.	...	12 oz.
For females	...	...	13½ oz.	...	10½ oz.
Wine :					
For males	...	...	48 dsp.	...	24 dsp.
For females	...	...	36 dsp.	...	24 dsp.
First distribution before inspection :					
Thin soup	...	...	30 dsp.	...	25 dsp.
Morning meal :					
1st.	Thin soup	...	...	...	25 dsp.
2nd.	{ Roast meat, three times a day	6 oz.	3 oz.	4 oz.	2 oz.
	{ Tripe, once a week	6 oz.	4 oz.	4 oz.	2½ oz.
	{ Spiced beef, three times a week	6 oz.	3 oz.	4 oz.	2 oz.
3rd.	{ Vegetables in season once a week	8 oz.	16 dsp.	5½ oz.	10 dsp.
	{ Dried vegetables, five times a week	8 dsp.	16 dsp.	6 dsp.	12 dsp.
	{ Spiced eggs, once a week	...	2 eggs	...	1½ eggs
Evening meal :					
1st.	Meat soup	...	30 dsp.	...	25 dsp.
2nd.	{ Boiled meat, six times a week	8 oz.	4 oz.	5½ oz.	2½ oz.
	{ Fish, once a week	8 oz.	5½ oz.	5½ oz.	3½ oz.
	{ Fresh vegetables, three times a week	8 oz.	16 dsp.	5½ oz.	10 dsp.
3rd.	{ Potatoes, twice a week	8 oz.	24 dsp.	5½ oz.	16 dsp.
	{ Milky rice or mulligatawny, twice a week	2½ oz.	20 dsp.	¾ oz.	10 dsp.

Observations.—(1) According to the necessities of the household, spiced beef can be substituted for tripe—boiled meat for fish. (2) The seasoning is included in the weight.

tripe, $6\frac{1}{2}$ oz. (before preparation) for adults, and 4 oz. (before preparation) for children ; dried vegetables, 8 dessert-spoonfuls for adults, and 5 for children, or vegetables in season 8 oz. for adults and 6 oz. for children, or 2 spiced eggs for adults and $1\frac{1}{2}$ for children (amount before dressing).

Patients leaving almshouse infirmary wards receive rations for the whole day, and consequently the foregoing regulations referring to patients leaving the hospitals do not apply to them.

Exceptional and Extraordinary Prescriptions.

All prescriptions, whether exceptional or extraordinary, are to be entered upon the visiting-sheet, and are to be shown in a column specially set apart for that purpose.

Exceptional Prescriptions.

Women lying in who are on a broth diet, or on the first or second grade of solid diets, may be given thick soup in addition to the allowances given to the rest.

Patients in the Midi and Lourcine Hospitals, patients suffering from scurvy, herpes, scrofula, and cancer in the St. Louis and Children's Hospitals, and lunatics, whether adults or children, who are on the fourth grade of solid diets, may receive 20 oz. of bread per day for each man, $16\frac{2}{3}$ oz. per day for each woman, 15 oz. per day for each boy, and $13\frac{1}{3}$ oz. per day for each girl. Insane children registered for the same diet shall also be allowed to have the same rations of bread as the adults in each of the dietary grades. These prescriptions shall be noted upon the visiting-sheet.

Patients on broths and soups may also be put upon a milk diet. Such milk diet may be total or partial, but it must be noted on the visiting-sheet. Upon the total diet patients shall receive milk and milk broth instead of thick broth and thick soup, and in equal quantities ; adults shall also receive 50 dessert-spoonfuls of milk, and children 40 instead of wine, whether Vin Ordinaire, Bordeaux, or Vin de Bagnols. Upon the partial diet the thick broth and thick soup are not altered, but the patients receive 50 dessert-spoonfuls of milk if adults, and 40 if children, instead of wine, whether Vin Ordinaire, Bordeaux, or Vin de Bagnols. Patients upon the first or second grades who shall be placed upon a milk diet shall receive $1\frac{3}{4}$ pint of milk if adults, and 80 dessert-spoonfuls if children, instead of wine, whether Vin Ordinaire, Bordeaux, or Vin de Bagnols.

Patients upon broths or soups, and on the first or second grades of solid diet, whose condition the physicians and surgeons think requires it, shall also be entitled to receive, by way of an exceptional and supplementary allowance, either 12 dessert-spoonfuls of Bordeaux for men, 9 for women, and 8 for children, or else a like quantity of Vin de Bagnols. This allowance may even be doubled for the benefit of patients on broths and soups whose complaint is very dangerous. Patients who have undergone major operations, and have been placed on broth or soup diet or upon the first grade of the solid diet, are also entitled to this allowance. All these prescriptions shall be entered upon the visiting-sheet.

Patients upon the first grade whose individual condition makes them require it in the opinion of the physicians and surgeons, may be given vegetables in season, fresh eggs, and fresh or preserved fruit instead of roast meat or fish. These substitutions, which are only to apply to individual cases, are to be mentioned on the visiting-sheet.

Extraordinary Prescriptions.

Extraordinary prescriptions are only permitted in quite exceptional and explicitly specified cases. They can only be given to patients suffering from starvation, diabetes, and so forth. Reason for them must be duly shown, and they must be specially authorised by the Administration. Such prescriptions are to be mentioned on the visiting-sheet.

Hours of Meals.

There are three meals in the day. The first distribution is at 7 A.M., and consists of milk or soup. This distribution may be withheld by the special orders of the physicians and surgeons. The second distribution is at 10 A.M., and the third at 5 P.M.

As children require sustained nourishment at short intervals, there may be given by way of luncheon, between the ten o'clock morning meal and the five o'clock evening meal, a light repast to all children whose condition requires it, and especially to those under ten years of age.

Article II.—Special Regulations for Patients under Treatment in the Municipal "Maison de Santé" and in Pay Hospitals generally.

The dietary of these patients is divided into two classes. It is made up according to the doctor's prescription of four grades of nourishment, differing from the grades shown in the foregoing tables only in the exercise of the greatest care in the preparation

of the food, in the introduction of slightly more expensive articles, and in the manner in which the meals are served.

Article III.—Regulations for Able-bodied and Infirm Paupers and Paying Inmates in the Almshouses and Retreats.

The dietary of the able-bodied is divided into full diet and spare. The full diet is given on Monday, Tuesday, Wednesday, Thursday, and Sunday ; the spare on Friday and Saturday, except in cases when the Administration might profitably utilise for the aged and infirm the cooked meat coming from the broth wanted in the hospitals. In the table on page 490 are set out the articles and quantities received during every twenty-four hours by the able-bodied and feeble inmates of the almshouses for the aged.

The able-bodied are entitled to the meal or distribution following immediately after their admission to the almshouse. Upon the voucher of the director they shall receive the food to which they are entitled. Inmates absent at the hour of distribution of a meal are not entitled to the food composing that meal, but the victuals are returned to the kitchen. Whenever the premises allow of it, the able-bodied inmates must take their meals in common in the dining-hall. They are forbidden to sell their victuals or to take them outside the establishment for any reason whatsoever.

Article IV.—Dietary of the Under-Officials and Servants.

The dietary of the under-officials and servants is divided between two refectories. Each person receives the distribution from one or other of these, according to his employment. The persons who are entitled to the distributions from the first refectory are : (1) the sisters, probationers, and superintendents ; and (2) the assistants and midwifery pupils. The second refectory is reserved for servants of inferior capacity. Details of these diets are given in the tables on pages 491 and 492.

Luncheon for the Non-resident Officials and Students.

Non-resident officials whose work requires their presence at the office before or after the hours fixed by the regulation, and non-resident students of excentric institutions who do not benefit by the luncheon indemnity, when discharging duties requiring their presence in the hospital till noon, may be given luncheon if the Administration recognise the necessity for it.

Refreshments for Physicians and Surgeons.

Physicians and surgeons who have prolonged their visits in the interests of their duty, or who have been specially summoned during the night, are entitled to ask for what refreshments they require, and the directors and stewards are obliged to comply with their request.

DIET TABLE FOR ABLE-BODIED AND INFIRM INMATES OF THE HOMES FOR THE AGED.

Dsp.=a small dessert-spoon.

Meals.		Kind of Food.	Quantities allowed.	
			Before Cooking.	After Cooking.
Per day	1st.	Bread for soup for men and women	...	3½ oz.
	2nd.	White bread for men ... ..	...	16½ oz.
		" " " women ... ..	...	13½ oz.
	3rd.	Wine for men ... ..	...	14 dsp.
		" " women ... ..	...	12 dsp.
<i>Meat Days.</i>				
For breakfast		Thin broth ... ..	...	50 dsp.
		or milk ... ..	...	25 dsp.
For dinner		Dried vegetables	10 dsp.	20 dsp.
		or fresh vegetables	11 oz.	22 dsp.
	1st.	or potatoes	11 oz.	33 dsp.
		or rice	1½ oz.	20 dsp.
		Cheese ... ..	...	1½ oz.
	2nd.	or prunes	3½ oz.	15 dsp.
For supper		or raisins ... ..	...	2 oz.
	1st.	Meat broth for soup ... ..	...	45 dsp.
	2nd.	Boiled meat	8½ oz.	4 oz.
<i>Meagre Days.</i>				
For breakfast		Thin broth ... ..	...	50 dsp.
		or milk ... ..	...	25 dsp.
For dinner		Dried vegetables	10 dsp.	20 dsp.
		or fresh vegetables	11 oz.	22 dsp.
	1st.	or potatoes	11 oz.	33 dsp.
		Cheese ... ..	...	1½ oz.
	2nd.	or prunes	3½ oz.	15 dsp.
		or raisins ... ..	...	2 oz.
For supper	1st.	Thin broth ... ..	...	50 dsp.
		Dried vegetables	18 dsp.	36 dsp.
		or fresh vegetables	22 oz.	44 dsp.
	2nd.	or potatoes	22 oz.	66 dsp.
		or salt fish (cod)	4½ oz.	3½ oz.

DIETARY OF THE UNDER-OFFICIALS AND SERVANTS.

1.—First Refectory.

Dsp. = a small dessert-spoon.

Meals.		Kind of Food.	Quantities allowed.			
			For Men.		For Women.	
			Before Cooking.	After Cooking.	Before Cooking.	After Cooking.
Per day	1st.	White bread ... ..	...	28 oz.	...	20 oz.
	2nd.	Wine ... ..	...	80 dsp.	...	32 dsp.
<i>Meat Days.</i>						
Breakfast	1st.	Roast or grilled meat	8½ oz.	4 oz.	6½ oz.	3½ oz.
	2nd.	Cheese... ..	...	2 oz.	...	1½ oz.
		or prunes	4 oz.	18 dsp.	3 oz.	13 dsp.
		or currant jelly ... ..	...	1½ oz.	...	1 oz.
		or fresh fruit ... ..	...	8½ oz.	...	6 oz.
Dinner	1st.	or milk ... ..	...	30 dsp.	...	25 dsp.
		Meat broth for soup ... ..	...	50 dsp.	...	50 dsp.
	2nd.	Boiled meat	8½ oz.	4 oz.	6½ oz.	3½ oz.
	3rd.	Stewed or roasted meat	8½ oz.	4 oz.	6½ oz.	3½ oz.
	4th.	Dried vegetables	15 dsp.	30 dsp.	10 dsp.	20 dsp.
		or fresh vegetables... ..	15 oz.	30 dsp.	15 oz.	30 dsp.
or potatoes		15 oz.	45 dsp.	15 oz.	45 dsp.	
<i>Meagre Days.</i>						
Breakfast	1st.	Eggs ... ..	...	3 eggs	...	2 eggs
	2nd.	Dried vegetables	15 dsp.	30 dsp.	10 dsp.	20 dsp.
		or fresh vegetables	15 oz.	30 dsp.	15 oz.	30 dsp.
		or potatoes	15 oz.	45 dsp.	15 oz.	45 dsp.
		or milk ... ..	...	30 dsp.	...	25 dsp.
Dinner	1st.	Thin broth for soup ... ..	...	50 dsp.	...	50 dsp.
	2nd.	Fresh fish	10 oz.	6½ oz.	8½ oz.	5½ oz.
		or salt fish (cod)	6½ oz.	5½ oz.	5 oz.	4 oz.
	3rd.	Vegetables in season... ..	15 oz.	30 dsp.	15 oz.	30 dsp.
		or fresh vegetables... ..	15 oz.	30 dsp.	15 oz.	30 dsp.
	4th.	or potatoes... ..	15 oz.	45 dsp.	15 oz.	45 dsp.
		Cheese... ..	...	2 oz.	...	1½ oz.
		or prunes	4 oz.	18 dsp.	3 oz.	13 dsp.
	4th.	or currant jelly ... ..	...	1½ oz.	...	1 oz.
		or fresh fruit ... ..	...	8½ oz.	...	6 oz.

II.—Second Refectory.

Dsp. = a small dessert-spoon.

Meals		Kind of Food.	Quantities allowed.			
			For Men.		For Women.	
			Before Cooking.	After Cooking.	Before Cooking.	After Cooking.
Per day	1st.	White bread ... ..	...	28 oz.	...	24 oz.
	2nd.	Wine ... ..	...	48 dsp.	...	32 dsp.
<i>Meat Days.</i>						
Breakfast	1st.	Thin broth for soup ... ..	...	40 dsp.	...	40 dsp.
	2nd.	Cheese... ..	...	2 $\frac{2}{3}$ oz.	...	2 oz.
		or prunes	5 $\frac{1}{3}$ oz.	24 dsp.	4 oz.	18 dsp.
Dinner	1st.	or raisins ... ..	...	3 $\frac{1}{3}$ oz.	...	2 $\frac{2}{3}$ oz.
		Meat broth for soup ... ..	...	50 dsp.	...	50 dsp.
	2nd.	Boiled meat	10 oz.	4 $\frac{2}{3}$ oz.	8 $\frac{1}{3}$ oz.	4 oz.
Supper	1st.	Stew	8 $\frac{1}{3}$ oz.	4 oz.	5 oz.	2 $\frac{2}{3}$ oz.
	2nd.	Dried vegetables	20 dsp.	40 dsp.	15 dsp.	30 dsp.
		or fresh vegetables... ..	20 oz.	40 dsp.	15 oz.	30 dsp.
		or potatoes	20 oz.	60 dsp.	15 oz.	45 dsp.
		or rice	2 $\frac{2}{3}$ oz.	40 dsp.	2 oz.	30 dsp.
<i>Meagre Days.</i>						
Breakfast	1st.	Thin broth for soup ... ..	...	40 dsp.	...	40 dsp.
	2nd.	Cheese... ..	...	2 $\frac{2}{3}$ oz.	...	2 oz.
		or prunes	5 $\frac{1}{3}$ oz.	24 dsp.	4 oz.	18 dsp.
Dinner	1st.	or raisins ... ..	...	3 $\frac{1}{3}$ oz.	...	2 $\frac{2}{3}$ oz.
		Thin broth for soup ... ..	...	50 dsp.	...	50 dsp.
	2nd.	Salt fish (cod)... ..	6 $\frac{1}{3}$ oz.	5 $\frac{1}{3}$ oz.	5 oz.	4 oz.
Supper	1st.	or eggs ... ..	...	3 eggs	...	2 eggs
		Fresh vegetables	20 oz.	40 dsp.	15 oz.	30 dsp.
	2nd.	or potatoes	20 oz.	60 dsp.	15 oz.	45 dsp.
Dinner	1st.	or dried vegetables	20 dsp.	40 dsp.	15 dsp.	30 dsp.
		Dried vegetables	20 dsp.	40 dsp.	15 dsp.	30 dsp.
	2nd.	or fresh vegetables	20 oz.	40 dsp.	15 oz.	30 dsp.
Supper	1st.	or potatoes	20 oz.	60 dsp.	15 oz.	45 dsp.
		Cheese... ..	...	2 $\frac{2}{3}$ oz.	...	2 oz.
	2nd.	or prunes	5 $\frac{1}{3}$ oz.	24 dsp.	4 oz.	18 dsp.
		or raisins ... ..	...	3 $\frac{1}{3}$ oz.	...	2 $\frac{2}{3}$ oz.

ATTENDANTS AND NURSES; LAY AND RELIGIOUS STAFF;
SPECIAL TRAINING SCHOOLS FOR NURSES.

In a large majority of French hospitals nuns still have the upper hand in the management and nursing of the patients. Their duties are very varied. While in some large hospitals, as, for instance, in Lyons, the nuns have to do all the work, even the most

menial kind, such as washing, sweeping, and cooking, at others there are but a few Sisters with lay attendants and nurses under them.

For many years broad-minded men have been attempting to shake off the theocratic yoke of the nuns, who from narrow-mindedness invariably showed a preference for religious patients, and alienated from the hospitals priests of other persuasions. But it has been possible only to introduce this reform in Paris, where it has been fostered by the efforts of the municipal council and of a famous physician, Dr. Bourneville.

To take the place of the nuns it has been necessary to establish an entirely new trained staff. With this object the Administration has established two large special training schools, which may be considered models of their class and which we must describe.

Special Training School for Nursing.

The schools of Bicêtre and la Salpêtrière are of a twofold nature, being both elementary and professional.

The elementary instruction is given by the schoolmasters and mistresses in the schools for idiot, backward, and epileptic children. It bears upon reading, writing, arithmetic, and spelling for the lower divisions, and upon arithmetic, the metrical system, orthography, composition, the history of France, and geography for the higher divisions.

The professional instruction includes :—(a) theoretical lectures ; (b) practical exercises ; and (c) rotation of duties.

(a) The theoretical lectures given in this ward relate to :—(1) elementary notions of anatomy ; (2) elementary notions of physiology ; (3) hospital administration and accounts ; (4) dressings, bandages, minor surgery, and so on ; (5) hygiene ; (6) minor pharmacy and administration of drugs ; and (7) the attentions to be paid to lying-in women and new-born babes. All these lectures, with the exception of the last-mentioned, which is reserved for nurses only, are given to attendants and nurses together. The scheme of instruction is reproduced each year.

(b) The practical exercises are held every day in the general infirmary for Bicêtre and la Salpêtrière, in a medical ward, a surgical ward, and the lying-in departments for the Pitié, under the direction of superintendents. The pupils learn the names and uses of the instruments employed in medico-chirurgical practice ; of the articles of linen, &c. contained in the stores ; of drugs in constant

use which must be found in every ward; and, lastly, they learn to make bandages on the lay-figure, to prepare statistics showing the movement of the inmates of the institution, to do the daily dressings, and so forth. These exercises are sometimes supplemented by others done under the direction of the under-superintendents or resident medical students, such as vaccination, depilation, administration of douches, and so on.

(c) The changing of duty or rotation consists in the pupils having to pass successively according to roster through all the duties of the almshouse or hospital—linen room, kitchen, wardrobe, dormitory of the able-bodied old men and of the infirm, lunatic department, children's section, and general infirmary. This rotation from one duty to another is carried out with the idea of putting the pupils in a position to fill any post in the hospitals, and of increasing their coolness, authority, and experience by placing them in contact with the various chiefs, whether physicians, surgeons, or male or female superintendents. We must add, however, that this portion of the training is far from being as satisfactory as we could wish. The system has still but very imperfect results. The attention of M. Peyron has again been drawn to this branch of the practical training, and it is hoped that he will issue formal instructions which will lead to its being carried out in a regular way at the three hospital schools—at any rate as far as the students holding diplomas and those of the first division are concerned.

To complete this account of the scheme of instruction given in the French training schools for nurses, we must add that the pupils write frequent essays on the various branches of the elementary and professional education, and that in some cases the professors subject them to practical examinations.

In the three schools remarkable results, which are worth pointing out, have been obtained, thanks to the devotion of the professors, masters, and mistresses. In the first place, with regard to the ordinary elementary training at Bicêtre and la Salpêtrière, a large number of attendants and nurses without any education, often even unable to speak French, have acquired a passable elementary education; there are upwards of forty students of this class at la Salpêtrière. A considerable number of attendants and nurses already possessed of a certain amount of education have been able to perfect it, and have attained an entirely satisfactory standard of elementary knowledge.

Progress of Laicisation.

Thanks to these schools, and the excellent work they have done, gradual progress has been made towards laicisation. It was effected in the Laennec hospital at the end of 1878; at the Pitié on the 1st of October, 1880; at the La Rochefoucauld almshouse in January, 1881; at the Ménages almshouse in July, 1881; at the Saint-Antoine almshouse on the 1st of August, 1881; at the Lourcine hospital in July, 1882; at the Tenon hospital in July, 1882; at the Ivry almshouse in February, 1885; at the Cochin hospital on the 21st of December, 1885; and at the almshouse of the Enfants-Assistés on the 1st of April, 1886. During the same period the Bichat, Andral and Broussais hospitals, founded by the municipal council and by the Administration, were entrusted to a lay staff from their opening. At the same time, acting upon the representations of the general council of the Seine, the prefectural administration provided the asylums of Sainte-Anne, Ville-Evrard, and Vaucluse with a lay staff, and installed lay attendants in the new asylum of Villejuif. During 1888, M. Peyron, acting with the Prefect of the Seine in accordance with the wishes of the municipal council, made regular progress with the work of laicisation. The Necker, Enfants-Malades, and Forges-les-Bains hospitals were all handed over to a lay staff on the 28th of October, 1886, and the Trousseau hospital on the 1st of October, 1888. Finally, on the 7th of July, 1888, the supervising council of the Assistance Publique passed a vote in favour of the laicisation of the Lariboisière and Beaujon hospitals. After this measure took effect, with the exception of the Berck-sur-Mer hospital and the endowed foundations of La Roche-Guyon, Chardon-Lagache, and Brézin, there were only three institutions out of the thirty hospitals and almshouses of Paris in which a lay staff did not exist. These three establishments were the Charité with thirty nuns, the Saint-Louis with twenty-five, and the Hôtel-Dieu with twenty-one—a total of seventy-six nuns. These circumstances, and the fact that in 1888 alone 143 pupils had been deemed worthy of certificates, satisfied the Administration that it could safely proceed that year with the work of laicisation, and in a discussion with the municipal council which took place shortly afterwards, the Director of the Assistance Publique undertook to provide the Charité and the Saint-Louis hospitals with a lay staff by the end of the year.

We should add, that side by side with the certificated nurses

there are many who have attended the school classes for one or two years, or even longer, who will very shortly prove excellent recruits for the work of laicising the houses of refuge. Here, too, it is stated to be important not only to replace the nuns by lay officials, but also to put in their places a lay staff that is better trained, more devoted, and absolutely attached to their duties.

The Administration, moreover, is preparing fresh pupils for professional teaching in the hospitals at which lay staffs have been recently organised, viz. the hospital of the Enfants-Malades, the almshouse of the Enfants-Assistés, and the Trousseau hospital. Falling in with the wishes of the municipal council, M. Peyron has taken advantage of the presence in these institutions of lay school-mistresses, whose duty it is to give instruction to the sick children, and to give elementary lectures every evening to the nurses. It may also, perhaps, be found feasible to entrust the mistresses of the school which has lately been opened in the Saint-Louis hospital with the same mission.

Before very long, therefore, owing to the measures which have been taken during the last ten years, and with which M. Peyron has associated himself with much good-will for the elementary and professional training of nurses, all the institutions dependent upon the Assistance Publique, to say nothing of several endowed foundations, will have lay staffs.

Regulations as to Nurses.

We have detailed the diets of the nurses under the head of the dietary system. We now append the regulations to which they are subject.

1.—Hours of Duty.

Art. 1.—Attendants, under-attendants, and day substitutes are on duty from 6 A.M. to 8 P.M. In those services in which there are one or more under-attendants or substitutes in addition to the attendant, a watch service may be instituted, taking duty in rotation between the hours of 6 P.M. and 8 P.M.

Art. 2.—Attendants, under-attendants, and night-substitutes are on duty from 8 P.M. to 7 A.M. next day. They receive all verbal and written information about the patients from the ward-superintendents. The giving up of the night-duty is done in the same way. A special memorandum book is kept for this double transference of duty.

II.—*Meals.*

Art. 3.—The duration of meals is regulated as follows. Half an hour is given for the first déjeuner between 7.15 and 8.15 A.M. An hour is allowed for the second déjeuner, its actual time being fixed by the Director of each institution according to the requirements of the service. Another hour is allowed for dinner between 5 and 7 P.M.

Art. 4.—The attendants, under-attendants, or substitutes do not all take their meals together, but are divided into two messes, who take their meals successively. The food is distributed at the time of each meal.

Art. 5.—In every institution a ward serving as a dining-hall shall be placed at the disposal of the attendants, under-attendants, or substitutes wishing to go there for meals.

III.—*Leave.*

Art. 6.—In all institutions the attendants, under-attendants, and substitutes on day duty are free to go out every day at 8 P.M., returning at 10.15 P.M. They may likewise go out during their hour for the second déjeuner, to make small household purchases.

Art. 7.—Attendants, under-attendants, and substitutes are also allowed to go out once a week, returning at 11 P.M., on condition of previously providing for their duties, and never making their leave coincide with the hours of public admission.

Art. 8.—Exceptional leave may also be granted in individual cases, but such leave can only be authorised by voucher from the Director of the institution.

Art. 9.—In cases of urgency, the Director of the institution has power to suspend all leave in the interests of the patients.

IV.—*Lodging of the Attendants and Others.*

Art. 10.—To employ the working staff of the establishment as private servants is against the rules. It is likewise forbidden to employ a servant coming from outside without special permission from the Director of the Administration of the Assistance Publique.

Art. 11.—The attendants and under-attendants take their meals in their respective quarters, or in the dining-hall. They must not bring their food into the wards. This applies also to substitutes to whom quarters may be given.

Art. 12.—The quarters must be kept in a strictly cleanly condition. The Director must satisfy himself on this point, in the interests of the appearance of the establishment and of general healthiness.

Art. 13.—Attendants, under-attendants, and substitutes shall receive no visits while on duty, except by permission of the Director of the establishment.

Art. 14.—Husbands and children under age alone are allowed to live in the quarters of the attendants, under-attendants and substitutes. For any other persons permission to stay there permanently must be obtained from the Director of the administration of the Assistance Publique. Permission to stay there occasionally may be given by the Director of the establishment.

Art. 15.—Persons authorised to live in the quarters of the attendants, under-attendants, and substitutes, must conform to the provisions of Art. 6 with regard to returning at night. Strange visitors must leave the institution at 10 P.M.

V.—General Regulations.

Art. 16.—Attendants, under-attendants, and substitutes must set the staff placed under them an example of diligence, industry, and attention to the patients and inmates.

Art. 17.—They are forbidden to receive any presents from the patients, inmates, or their families. They may not keep any deposit of money, jewellery, or valuables made by the patients inmates, or working staff.

Art. 18.—The prescribed uniform is compulsory in the institution. It may not be worn outside the institution in the evening or when the officer is not on duty.

Art. 19.—This regulation applies to all the minor officials to whom quarters are given.

DISPENSARIES. FREE CONSULTATIONS. DOMICILIARY RELIEF. CHARITY OFFICES.

In every French town the hospital administration is almost invariably saddled with the relief of the poor. This relief takes the form of free consultations, free distribution of drugs, food and pecuniary assistance, visits of doctors to the homes of the poor, and so on. Similarly in Paris the organisation of pauper relief is vested in the hands of the Assistance Publique. The conditions

upon which such relief is administered are regulated by the following special decree.

I.—*The Organisation of Charity Offices.*

Art. 1.—In each arrondissement of the town of Paris a Charity Office is charged with the duty of domiciliary relief.

Art. 2.—Each office is administered by a committee composed of (1) the mayor of the arrondissement, president *de jure*; (2) deputies, members *de jure*; (3) a minimum number of twelve governors; and (4) a secretary-treasurer, who has a consulting voice at the sessions of the Board. The number of governors is fixed by a decree of the Prefect of the Seine. It may be raised to eighteen.

Art. 3.—Attached to each Board are commissioners and lady visitors, doctors in medicine, midwives holding first-class certificates, servants, agents, and auxiliaries. The lists of the medical and administrative staff are fixed for each year by decree of the Prefect of the Seine.

Art. 4.—The governors are appointed by the Prefect of the Seine, on the nomination of the Director of the Administration of the Assistance Publique. They are selected from a triple list of candidates presented by the mayor of the arrondissement. Their duties are honorary, and they can only be dismissed by the Minister of the Interior at the instance of the Prefect of the Seine, after consultation with the Council of Supervision and the Director of the Administration of the Assistance Publique. The administrative committees can only be dissolved in the same manner.

Art. 5.—In order to provide for the renewal of the governors, the committees are divided by lot into four series, and every year one series is renewed. The retiring governors may be reappointed. When there is occasion to replace a governor before the expiry of his commission, the new governor only remains in office for the term of the governor whose place he has taken. As a provisional measure, the actual governors remain in office for the period for which they have been appointed.

Art. 6.—After twenty years' service governors and physicians may receive from the Minister of the Interior, upon the request of the Charity Board Commission to which they are attached, the title of honorary governor and physician.

Art. 7.—The administrative committees appoint annually by ballot from among their members a vice-president, a secretary-

director, an orderer, and a representative at the Administration of the Assistance Publique.

Art. 8.—The commissioners and lady visitors are appointed by the administrative committee by ballot and majority of votes, upon the nomination of the governor for the division to which they are to be attached. Their duties are honorary, and they can only be dismissed by the Prefect of the Seine at the instance of the administrative committee.

Art. 9.—The secretary-treasurer, servants and agents of the Charity Office are appointed by the Prefect of the Seine, agreeably to the provisions of Art. 6 of the regulation upon public administration, dated the 24th of April, 1849. The Prefect of the Seine upon nomination from the administrative committee, provides for the appointment of the staff attached to the houses of refuge.

Art. 10.—The administrative committee can only pass resolutions if a majority of its members be present.

Art. 11.—An assembly is held annually, composed of (1) the administrative committee ; (2) the commissioners and lady visitors ; (3) the physicians and midwives. At this meeting an account is given of the work accomplished during the previous year, and of the receipts and expenses of the service. Persons invited to this session may make such observations as they please, and a verbatim report of the meeting is forwarded to the Director of the Administration of the Assistance Publique.

Art. 12.—Within the jurisdiction of each Board as many houses of refuge are established as the requirements of the service may demand, without prejudice to the other charitable institutions which may be maintained by the Charity Boards. These houses of refuge are reserved by the governors exclusively for the reception of paupers for the medical and pharmaceutical service, and for the work of distributions and loans. Their staff is resident.

II.—*Working of the Charity Offices.*

Art. 13.—The administrative committees distribute and make use of all the relief placed at their disposal by the Administration of the Assistance Publique or by the benevolence of private persons ; they supervise all charitable institutions maintained by the Boards, and more especially the houses of refuge.

Art. 14.—The mayor is chairman of the administrative committee ; in his absence the chair belongs by right to one of the

deputies, and in default of these latter gentlemen to the chosen vice-president. The mayor has to superintend the entire work entrusted to the Board. He exercises a direct authority over the administrative staff, and calls the administrative committee together at least twice a month.

Art. 15.—The secretary-director is commissioned to see to the execution of the Board's orders. He superintends the compilation of the reports of meetings and the keeping of all registers other than the accounts.

Art. 16.—The orderer supervises the accounts ; he has to sign the authorities for payments and assignment orders intended to place the funds for distribution at the disposal of the mayors, deputies, and governors. He issues orders for the withdrawal of funds placed in the public treasury as a running account, signs the vouchers for orders and authorities for delivery of goods, signs the general journal at the end of each month, and balances the cash and stores, making a verification as often as he deems proper.

Art. 17.—Each governor is charged with the work of relief in the division of the *arrondissement* specially assigned to him, the commissioners and lady visitors allotted to the division rendering every assistance. The governors receive the paupers at least once a week at the house of refuge reserved for their division. To persons whose pauper condition has been established they may give the certificates required in the circumstances anticipated by the laws or administrative regulations. These certificates are *viséd* by the mayors.

Art. 18.—The secretary-treasurer is entrusted with the compilation of the reports and keeping the registers. He prepares the official correspondence of the Charity Board and presents it to the President for signature. He directs the work of the servants, and looks after the carrying out of the internal regulations and the order and proper keeping of the secretarial department, the houses of refuge, and all the services dependent upon them. He signs the orders for the delivery of goods. He attends the committees on purchases and receipts of donations, drafts letters of acceptance, and signs them conjointly with the appraisers and specially delegated governors. He receives the supplies and satisfies himself as to their quality. He has the sole charge of the cash and stores ; and, finally, he is obliged, whenever required, to submit to the administrative inspectors and to the members of the super-

vising council, all the registers and documents they may have to consult for the proper discharge of their duties.

Art. 19.—The secretary-treasurer is bound by all the obligations imposed upon accountants of public moneys. In the duties he has to fulfil, and in his responsibilities, administrative and pecuniary, he may be compared to the cashiers and stewards of hospital establishments.

Art. 20.—Members of the administrative committee, commissioners, and lady visitors must have absolutely nothing to do with the management of the money.

III.—*Medical Staff.*

Art. 21.—The physicians of the Charity Board are appointed by the Minister of the Interior for four years, which begin to run from the 1st of January following their appointment. At the expiration of the term for which they have been appointed they may be re-appointed for a further period of four years, and so on. No physician may remain in practice after his sixty-fifth year.

Art. 23.—Physicians actually on duty may, at the expiration of the period for which they have been appointed, be reinstated by the Minister of the Interior on the terms specified in the preceding article, without having to submit themselves for examination.

Art. 24.—When there is occasion to appoint a Charity Board physician the examination is announced three months in advance. Candidates must enter their names at the town-hall of the arrondissement, and prove that they are Frenchmen, twenty-five years of age at least, holding a diploma as doctor of one of the State faculties of medicine, and that they reside in the arrondissement in which the vacancy has occurred, or in a neighbouring district. This last condition, however, may be dispensed with upon an undertaking to comply with the necessary conditions as to residence immediately after appointment. The list of entries is closed a month before the date of the examination. The form the examinations shall take and the nature of the tests, more especially the clinical tests, shall be settled by decree of the Minister of the Interior.

Art. 25.—In cases where, in consequence of a lack of candidates, or of insufficient tests as declared by an explanatory report of the examination jurors, the examination is barren of results, the vacant posts may be filled up by the Minister of the Interior upon the proposition of the administrative committees.

Art. 26.—Doctors appointed by the Minister are at the disposal of the service until replaced. In the event of a doctor being disabled, provision is made for the carrying on of the service by the Director of the Administration of the Assistance Publique, acting in concert with the administrative committee. The allowances of such doctors are paid to their substitutes.

Art. 27.—At the end of every year, the mayor forwards to the Director of the Administration of the Assistance Publique a report on the way in which each doctor has performed his duties. The mayor is obliged to send on immediately to the Director of the Assistance Publique any written complaints lodged against the doctors. If the Director considers these reports to be justified he communicates them to the administrative committee, and, if need be, to the supervising council, by whom the doctor must be heard in his own defence.

Art. 28.—Doctors of the Charity Boards may be censured or reprimanded by the Prefect of the Seine after consultation with the supervising council, and may be removed by the Minister of the Interior after consultation with the same body. In urgent cases the Prefect may order the provisional suspension of a doctor. A doctor once dismissed can never again be on the medical staff of the Charity Boards.

Art. 29.—The duties of a doctor to a Charity Board are incompatible with those of a governor.

Art. 30.—Midwives are appointed by the Prefect of the Seine, upon the nomination of the administrative committees. They can only be dismissed by the Prefect of the Seine after consultation with the administrative committees. They are bound to reside in the arrondissement in which their duties lie.

IV.—*Persons requiring Relief.*

Art. 31.—Persons requiring relief may receive annual or temporary assistance

Art. 32.—The only persons entitled to receive annual relief are paupers incapable of making their own living by work, and who belong to one of the following categories :—(1) persons suffering from chronic infirmity or disease ; (2) aged people more than 64 years old ; and (3) orphans under 13 years of age. Persons of French nationality, whose domicile for relief is in Paris, alone are entitled to the relief. Authority to receive annual relief can only be granted by the administrative committee upon the report of a

special committee, which examines and passes judgment upon the individual proposals of the governors. At the end of each year the administrative committee has a revision made of the list of persons in receipt of annual relief.

Art. 33.—Paupers in receipt of annual relief are bound to acquaint the secretarial department of the Charity Board with the amount of permanent relief they may be receiving from charitable institutions not belonging to the Administration of the Assistance Publique. In the event of a false declaration the annual relief is withheld. The list of persons in receipt of annual relief may be shown to the representatives of charitable institutions who undertake to show the Charity Board the list of paupers whom they assist.

Art. 34.—Temporary relief may be extended to persons who are in temporarily destitute circumstances, especially as a result of accident, sickness, or childbirth. The governors acquaint the secretarial department of the board with the names, Christian names, address, and vocation of persons granted temporary relief, and also with the suspension of the grants.

Art. 35.—In the first few days of each month the secretary-treasurer must acquaint the Administration of the Assistance Publique with the general movement of the population in receipt of relief in their arrondissement.

Art. 36.—The nature of the injuries, sickness, or infirmity must be declared by the medical officers of the Charity Boards.

V.—*Relief.*

§ 1. *Relief charged upon the Budget of the Charity Boards.*

Art. 37.—The Charity Boards grant relief in kind or in money, according to circumstances.

Art. 38.—The vouchers for relief in kind are "to order" in the case of articles in the store or for which the accountant has to render account. Other vouchers are "to order" or "to bearer." Vouchers "to bearer" for relief in kind are only available for the quarter indicated on the stamp with which they are marked. They must be marked with the stamp of the Administration of the Assistance Publique before being put into circulation.

Art. 39.—The amount of temporary relief in money to be given to each pauper is settled by the administrative committee on the report of the divisional governor.

Art. 40.—A credit account for temporary relief in money may also be opened in the name of each divisional governor, the amount of credit being voted quarterly by the administrative committee. With the Prefect's sanction a similar account may be opened in the name of the mayors, upon which the mayors may draw when relief is urgently required.

Art. 41.—Relief in money is given by cheques made payable "to order" and signed by the orderers, or by the mayors and governors in their capacity of assistant orderers. The cheques, which are numbered beforehand, are torn from books with counterfoils. They are only available during the month in which they are drawn, and can only be cashed by the secretary-treasurer upon the receipt of the person to whom they are made out.

Art. 42.—By way of exception to the provisions of the foregoing article, annual relief may be paid without receipt by the secretary-treasurer to bearers of tickets payable "to order," which constituted the claim of the persons relieved. These tickets are marked out into squares corresponding to the months of the year, and the signature of the divisional governor placed monthly in each of these squares holds good as a certificate of the pauper's life, and as an authority to pay the relief. After the monthly payment the tickets remain in the treasurer's possession, and after seeing them the orderer draws up a report proving their regular return to the Board. The tickets are then returned to the divisional governors, who are obliged to forward them to the paupers after having signed them afresh.

Art. 43.—The cheques, vouchers, and orders for relief of all kinds must be delivered direct to the paupers and taken to their domicile by the governors, lady visitors, or commissioners. The administrative committees and governors are forbidden to give money grants to satisfy themselves that the relief orders have been delivered.

Art. 44.—The Charity Boards are empowered to lend the poor any articles for their use. The service of loans, and particularly of linen, is entrusted to the assistant staff in the houses of refuge, under the supervision of the secretary-treasurers.

Art. 45.—The Charity Boards may secure the help of a wet-nurse for the children of women confined in their own homes and known to be unable to suckle their infants. This special relief is given provisionally in cases of emergency and until the administrative

committee has come to a decision upon them, at the simple request of the doctor signed by the governor.

Art. 46.—The Boards may institute special relief to provide funds for travelling and the return of aliens to their country, for rent, apprenticing, admission into orphanages, southern resorts, hydropathic establishments, seaside resorts, and other charitable institutions.

Art. 47.—The Charity Boards can facilitate the admission of paupers into mutual benefit societies, particularly by providing them with the necessary amount for the entrance fee.

Art. 48.—Upon application from the governors the administrative committees, after preliminary investigations and within the limits of the credit account opened in the budgets for the purpose may authorise a gratuitous delivery of clothes intended for the infirm.

§ 2. Relief charged directly to the Budget of the Administration of the Assistance Publique.

Art. 49.—Relief funds, representing residence in an almshouse, are founded on behalf of the aged and infirm. These funds, of which the number is fixed annually in the budget of the Administration of the Assistance Publique, are divided into two classes: the first allowing an annual grant of £14 8s., the second of £7 4s. These relief funds are distributed by the Assistance Publique among the Charity Boards, on bases laid down in the last paragraph of Article 73.

Art. 50.—When in any arrondissement one of these representative funds is left without an incumbent from death, admission into an almshouse, erasure, or concession from a higher grade, the administrative committee of the Charity Board presents one or more candidates to the Administration of the Assistance Publique after deliberating upon a special report of the divisional governors concerned. Admission to the representative relief funds is attended by the same forms and conditions as admission into almshouses. The twentieth representative relief fund may be bestowed by the Administration of the Assistance Publique without any preliminary presentation of candidates by the administrative committees.

Art. 51.—Representative relief grants may be withheld in the event of any change in the paupers' circumstances. They cannot be held jointly with any other relief from the Assistance Publique except medical relief.

Art. 52.—Representative relief grants are paid by the secretary-treasurers of the Charity Boards upon the account of the Administration of the Assistance Publique in the special manner enjoined in Article 42, and under the head of treasury operations. No estimate is made of these payments in the budgets and administrative accounts of the Charity Boards. The divisional governors have the exclusive duty of insuring the delivery of the vouchers for relief to the paupers.

Art. 53.—The budget of the Administration of the Assistance Publique may contain a grant for returning to their own homes paupers who are aliens to the capital. This grant is at the disposal of the Director of the Administration, and he is authorised to employ it for the purpose specified.

Art. 54.—Of the total amount of grants entered in the budget of the Assistance Publique for domiciliary relief one per cent. must be placed at the disposal of, and divided equally between, the Prefect of the Seine and the Director of the Assistance Publique, to be distributed by them as private alms. The total sum thus deducted must not, however, exceed £2,400. A detailed account of the relief thus given, with the names of the recipients, must be produced every year in support of the accounts.

§ 3. *Grants charged upon the Departmental Budget.*

Art. 55.—Relief granted to the poor and charged upon the funds of the Rescued Children service, and especially relief granted to foster-mothers and orphans, is paid by the secretary-treasurers of the Charity Boards under the head of treasury operations in the manner laid down in Article 42. The vouchers for relief are sent to the persons concerned through the divisional governors.

VI.—*Medical Assistance.*

Art. 56.—The health service in the houses of refuge permits of medical consultations and care given by the medical officers of the poor on fixed days and at fixed hours.

Art. 57.—The doctors are instructed to treat the sick either in their own homes or in the consultation rooms. They are bound to supply all the statistical information required by the Administration.

Art. 58.—The midwives whose duty it is to attend confinements in the mothers' own houses are under the supervision of the district

medical officer, whom they must send for when a confinement presents any difficulties. They are obliged to enter in a special register all the statistical information required of them by the Administration.

Art. 59.—The secondary staff of the houses of refuge aids the medical staff in the dressings and other details of treatment, and also visits the sick poor at their homes.

Art. 60.—Domiciliary medical assistance is given provisionally on receipt of a simple request addressed to the secretarial department of the Charity Board. The doctors and divisional governors are immediately informed of applications concerning them by the secretary-treasurers.

Art. 61.—A committee, called the Medical Service Committee, is composed of the president or vice-president of the administrative committee, of a governor and doctor appointed by the administrative committee, and of the secretary-treasurer. It meets every week to take cognizance of everything relating to the service of the sick, decides whether the medical assistance is to be continued or suspended, and resolves upon the relief, pecuniary or otherwise, to be extended to the sick. The president of this committee is assistant steward of pecuniary relief. He delivers the cheques under the conditions described in Article 41. In urgent cases during the intervals between the sessions relief may be given in kind upon vouchers, or in money upon cheques, by the president of the committee who gives an account thereof to his colleagues at their first meeting.

Art. 62.—The medicines prescribed by the doctors for paupers in receipt of relief are provided to them free of charge. Drugs issued from the hospital central store are delivered at the dépôts established near the relief institutions belonging to the Charity Boards. The other drugs are supplied by the apothecaries of the arrondissement, who are purveyors to the Charity Boards. The doctors' prescriptions declare expressly whether the drugs are to be supplied by the apothecaries of the arrondissement, or by the dépôt of the Administration. In cases of emergency the doctors are authorised to declare upon their prescriptions that they are to be supplied without distinction by the first apothecary to whom the pauper may apply.

Art. 63.—The Medical Service Committee gives an account to the administrative committee, at the end of each quarter, of the condition in which the service is. It proposes the requisite credit

votes, which include all the expenses occasioned by the service of the sick.

Art. 64.—The president of the Medical Service Committee is charged with the selection of male and female mechanics in a convalescent condition, to be sent to the Vincennes and Vésinet asylums. The domicile for relief purposes of those thus selected must be in Paris, and during their illness they must have been attended at home.

VII.—*Charity Board Receipts.*

Art. 69.—The funds of which the Charity Boards have the disposal are made up as follows :—(1) private revenues ; (2) donations and bequests ; and (3) sums paid over to them by the Administration of the Assistance Publique as subsidies out of the general funds appropriated to the service of domiciliary relief.

Art. 70.—The administrative committees must employ all the means they may consider best adapted to swell the resources of the Charity Boards, and particularly to open subscription lists, start collections, institute poor-boxes, and organise charity fêtes. Account is rendered of the gross receipts and of the expenses of these fêtes.

The whole amount of the donations and gifts placed by private benevolence in the hands of the mayors, deputies, governors, commissioners, or lady visitors, wheresoever and whensoever, must be paid intact into the funds of the secretary-treasurers, with the proviso that it will ultimately be applied in accordance with the expressed intentions of the donor.

Art. 71.—When donations and bequests are made to the poor for domiciliary relief without being appropriated to a specified arrondissement, they are divided among the Charity Boards conformably with the provisions of the second paragraph of Article 73.

Art. 72.—Subsidies from the Administration of the Assistance Publique include :—(1) subsidies intended to cover the entire fixed expenses of the Boards ; (2) subsidies applicable to various expenses, but not specially appropriated ; and (3) subsidies towards variable expenses, and specially appropriated according to the features of the budget of the Assistance Publique.

Art. 73.—The subsidies towards the fixed expenses are made to the Charity Boards of the arrondissements named in the annual budget of the Assistance Publique.

The subsidies towards variable expenses are divided annually

between the Charity Boards as follows : one-fifth in proportion to the population of each arrondissement, and two-fifths in inverse ratio to the sum total of the private and personal contributions of each arrondissement, divided by the number of persons constituting the general population of the arrondissement ; the remaining two-fifths are divided between the Charity Boards of the poorest arrondissements of Paris by the budget of the Administration of the Assistance Publique after consultation with the representatives of the Charity Boards.





CHAPTER XXI.

GERMANY.



IN former days, when the power of the State was as yet insufficiently developed, the helpless sick and infirm could not hope for relief from the public, but had to turn to the pious foundations of the benevolent. Yet, although these institutions were numerous, the destitute were often forced in beggar-crowds about the streets and church doors to appeal for charity. The beneficent influence of improved medical science upon the fate of these poor creatures has only lately, especially in the present century, made itself felt. In Prussia, as in other civilised lands, those pious foundations which grew out of the spirit of Christianity have exercised a most weighty influence in extending provision for the sick and feeble. It is especially to the activity of that great brotherhood for the care of the sick, the Knights of St. John, the Knights of the Temple, and the Knights of the German Order, that we owe the foundation of many hospitals centuries ago in numerous parts of the Fatherland.

The barbarism of the following law, which was accepted in East Prussia in 1230 A.D., at a time when the German Knights had to come to the succour of Christians already hard pressed, is worthy of notice:—"Be a man laden with sick women, children, brothers, sisters, or domestics, or be he sick himself, then let them be where they lie, and we praise him too if he would burn himself or the feeble person." These people were possessed with the idea that heaven had marked out for vengeance those who fell sick, and that the malady was the proof of the wrath of the gods. How different is this teaching from that of Christ. The hospitals which were erected in Königsberg, Elbing, and other places by the German Knights were the earliest hospitals in the East of

Prussia. Count Albrecht I. of Brandenburg, who had been with the Crusaders to the Holy Land and had seen there the hospital of the Knights of St. John in Jerusalem, was the first to found a hospital in his own province. This he did in the year 1160 A.D. To the Knights of the Temple the hospitals of Frankfort-on-the-Oder, Müncheberg, and Königsberg, and several others, owe their foundation.

It appears, therefore, that the origin of hospitals in Prussia is to be traced back to the time of the Crusades, and the models which the founders of these institutions had in their minds were the hospital in Jerusalem itself and the renowned hospital of the Holy Spirit in Rome. Towards the middle of the twelfth century one Guido had, as the reports tell us, founded at Montpellier, in France, a hospital to the Holy Spirit. He gathered comrades about him, and formed an Order after the pattern of that of Augustine. Soon his example found imitators in other towns of France. The new society developed so considerably that Pope Innocent III. in 1198 A.D. felt himself compelled to recognise it in a letter to its founder, and as a consequence these devotees obtained permission to erect churches within their possessions. All candidates proposed by the brethren of the Order were to be ordained priests by the bishops. All their other hospitals were subordinated to the parent institution in Montpellier. Nay more, the Pope in 1204 A.D. gave over to Guido and his companions the hospital of the Holy Spirit in Rome, originally built by the Anglo-Saxon kings in the eighth century, because of the distinguishing feature of the Brotherhood—care for the sick. On the death of Guido in 1208 a successor was appointed, who should have his seat in Rome. Henceforward the hospital in the Holy City was to be the parent institution of the Order. Pope Innocent III. placed the Order in immediate dependence upon the Papacy. In every country of Europe it maintained the majority of the institutions for the care of the poor and sick, and by the end of the thirteenth century almost every town of importance in Germany had its "Hospital of the Holy Spirit."

These foundations did not confine themselves to the single purpose of fostering the infirm : they, like the parent establishment, trained up orphans and also received poor wayfarers for succour. It was usual to treat with childless people of means for the entire reversion of their fortunes in return for lifelong maintenance. From this arrangement has proceeded the custom of selling vacancies, which is a chief feature of the hospitals of many towns. The brethren

zealously studied medicine and set high value upon medical science, and their foundations had a great influence in developing the new knowledge.

Their significance in another direction cannot be left unnoticed. While hospitals of earlier date were almost exclusively under spiritual control, and in times of confusion soon fell under the power of rapacious nobles or became almshouses, these, on the other hand, soon came to be managed in large measure by the towns; and to this circumstance is to be attributed the fact that they braved all the storms of the time, and flourish to this day in many parts of the Fatherland. Where they did not fall under municipal control they have perished. There are numerous institutions which now only serve as infirmaries for the aged; but there are others in which care of the sick remains the principal feature. Among these institutions may be mentioned the Hospital of the Holy Spirit at Frankfort, founded in 1267 A.D., and the borough hospital in Glogau, which had its origin in the Hospital of the Holy Spirit founded there in the thirteenth century and taken over at a later date by the Knights of the Cross, who were very numerous in Silesia.

These hospitals were not as a rule constructed for the reception of infectious cases, as they were usually built inside the towns near the rivers. Ever since the time of the Crusades, infectious hospitals were erected outside the walls, and were to be found earlier in West Germany than in the East. People generally called them leprosy hospitals, Lazarus hospitals, or lazarettos, and they served for the reception of persons afflicted with leprosy. It must not be supposed, however, that leprosy only appeared in Germany with the returning crusaders, but it was when Christian charity began to establish institutions for suffering humanity that public attention began to be directed to the subject.

Almost all leprosy hospitals in North Germany were named after St. George or St. Jürgen, and of institutions with this name there are still some in existence, while others now used for the sick were originally erected for the leprous. Among them are the borough hospital, Siechhof, Nordhausen, Erfurt county, founded in the thirteenth century; the St. Viti hospital, Uelzen, county of Lüneburg, dating from 1412 A.D.; and the borough hospital in Haigerloch, county of Sigmaringen. The Cassel infirmary, erected as an isolation hospital for the leprous in the commencement of the fourteenth century, is now a foundation

for chronic patients. The St. George's hospitals at the present day are also institutions for the infirm and aged.

It is an error to suppose that only patients affected with leprosy were taken into these places, for other infectious cases also were admitted, and in fact many of the buildings became plague hospitals. Cases of syphilis were not received, but at the end of the fifteenth century special erections, called French hospitals, were set apart for them. The necessity for infectious hospitals had then been long recognised, and small-pox hospitals also were built. One of this latter class was founded at Königsberg by Duke Albrecht in 1531, in connection with the Loebenicht hospital. Many ordinary hospitals have originated from plague hospitals; one, for instance, at Elbing, founded in 1624, now serves as an infirmary for the poor and aged. On passing under review the hospitals of several large centres of German life, such as Hamburg, other facts of the same kind will be referred to later on at greater length.

The houses of refuge were not hospitals properly so called, but hostels for the poor and for pilgrims. But some few hospitals, such as the Elizabeth Hospital, Elbing, Danzig, owe their endowments to this source, although their present designation conceals all connection with the old houses. It must also be noticed that certain pious foundations were called Inns in the Middle Ages: one such, founded in 1319, has now become the borough hospital of Duisburg (County of Düsseldorf). In this way a certain number of charitable institutions have been traced back to the pious foundations of the Middle Ages; sometimes it is the site, more rarely the buildings, and sometimes the endowments which have led to later developments.

First, then, it was Christian corporations who considered the relief of the suffering to be a sacred duty; then it was the municipal corporations that stepped to the front, recognised their duty, and greatly extended and improved the hospital system. The State itself did not begin to make its influence felt until the services which medical science rendered to the public health began to be fully established. Relief for the poor was the motive in the erection of many of these institutions, which were to admit the sick and infirm. But in the last century the value of the healing art found recognition in the foundation of institutes or clinics for training medical men. The establishment of hospitals as apart from infirmaries—the care of the sick as apart from the care of the poor—became gradually more and more differentiated.

The more medical science developed knowledge of disease, the more did the State concern itself with the sick and infirm. In the present century it has been admitted that the duty of society to these unfortunates is only discharged when all the varieties of disease are treated in specially erected institutions furnished with all suitable appliances. In this way have originated general hospitals, special hospitals, asylums for the insane and for idiots, lying-in hospitals and infirmaries. State interference in the erection of these institutions limits itself to making adequate provision for the foundation and maintenance out of State funds of institutes for medical instruction. In a few cases State aid is contributed for local necessities. As for the rest, the various self-governing bodies are subordinate within the State, and are legally bound to provide out of public funds what is needful for the care and cure of their sick, insane, and infirm.

The benevolence of certain societies and private individuals has aided practically the extension of the hospital system. Besides the numerous endowments, dating from the most ancient times, which have in many places laid a financial foundation, there are societies which maintain their old connection with the care of the sick and infirm. There is the knightly Order of St. John, which long ago set before itself as one of its ideals the care of the sick, is now merged in the Evangelical nobility, and is still working for the same end. There is the Catholic nobility, which has not lagged behind, and which in our own times does homage to these principles in the many habitations of the Knights of Malta. The Roman Catholic Orders and Corporations that have lately busied themselves with these duties, as well as the whole system of deaconesses which has originated in the present century, have borne a principal part as well in the foundation of new institutions as in the training of persons to nurse the sick.

Of more general and extended significance for the development of hospitals are certain ladies' societies, which owe their existence to the activity of the Empress Augusta of Germany. Under her patronage these societies have succeeded in building many new institutions, in extending others that were old and antiquated, and in infusing spirit into those workers who were endeavouring to train the attendants for the sick. The Empress Frederick also had her share in this work, for it was under her auspices that the Victoria Hospital, Berlin, which is a home for the education of women intending to devote themselves to the vocation of nursing, was

founded. In all the various grades of society these exalted personages have found zealous imitators, and their exertions have not been bestowed in vain.

It will be convenient to give some details of the activity of the various benevolent Orders in the sphere of hospital construction and care for the sick. These bodies have been no less active in our own times than in the Middle Ages. The history of single institutions shows best how long is the honour roll of those who have supported both private and public institutions, and whose support has long been felt after they themselves have passed away. Their efforts have always received the warmest encouragement from the State: indeed King Frederick William IV. expressly laid it down that such persons were to have cordial assistance from all those concerned in managing and superintending the poor-laws. Moreover, the Minister of Public Works grants to all members of these societies and habitations the privilege of travelling over the State railways at reduced rates.

THE KNIGHTS OF ST. JOHN.

As early as the year 1160 A.D., during the lifetime of their Grand Master Raymond du Puy, the Knights of St. John were in possession of estates in Prussia, which were given to them by Albert the Bear, Count of Brandenburg, on condition that the revenues might be devoted to the purposes of the hospital of the Order in Jerusalem. Other gifts followed. These estates were farmed to persons called *Commendatores*, and the moneys thus realised were called *Responsiones*. It was in the year 1312, when the Temple Order was dissolved, that the so-called Balley Brandenburg, which formed a portion of their estates, passed to this Order. The last Master of the Order was Prince Augustus Ferdinand of Prussia (1762–1811), for in 1810 all cloisters, cathedral foundations, balleys, and commendats were declared State property. Between the years 1812 and 1852 there was in existence a Royal Prussian Order of the Knights of St. John, composed only of the highest nobility, which was decreed in memory of the Balley Brandenburg. In the year 1810, when the original Order was dissolved, it did not possess a single hospital, and this fact was pointed out in 1852, when the Balley Brandenburg, and with it the old Order, were revived. The following statutory provisions indicate the purposes for which the Society was re-established.

"The Order shall erect, so far as its means allow, throughout the whole country, hospitals and institutions in correspondence with its objects, the former by preference in small towns for invalids from the same and the rural districts; moreover, it shall take into its hands the governance of such other hospitals and institutions as shall from time to time be entrusted to its protection and rule.

"There shall be a model establishment erected in Sonnenburg.

"The nursing shall not be undertaken by a paid staff, but in a spirit of benevolence by volunteers, who (both men and women) shall, after examination, be admitted into the Order as brethren and sisters of service, wearing a distinguishing badge."

At the head of this re-constituted Order is the Master, who names the Chief Knights, one for each province, while the Knights by Honour are nominated by the King. Its relationship to the Prussian authorities is stated thus: "The Balley Brandenburg has never found itself independent of the Lords of the Soil: for the Sovereigns of Brandenburg have always exercised sovereign and patron rights over the Balley. But no State Board has ever been placed as superior over the Balley."

Its endowments upon its revival amounted to no more than £82 4s., the amount of a collection taken up when the Grand Master was installed at Charlottenburg on the 17th of May, 1853; and its first work consisted in the maintenance of six free beds in the Bethany hospital, Berlin, belonging to the deaconesses, until its own hospital in Jüterbog should be opened. By 1885 the Order possessed, among others, the following hospitals in Prussia, there being thirty-three in all.

County.	District.	Locality.	Year of Foundation.	Number of Beds.
Königsberg ...	Prussian Holland	Prussian Holland	1860	58
Marienwerder . .	Flatow ...	Vandsburg ...	1878	33
Potsdam ...	Teltow ...	Gross-Lichterfelde	1885	100
Frankfurt ...	Ost-Sternberg ...	Sonnenburg ...	1858	65
Stettin ...	Randow ...	Züllchow ...	1860	100
Köslin ...	Lauenburg ...	Lauenburg ...	1884	30
Posen ...	Fraustadt ...	Fraustadt ...	1858	26
Bromberg ...	Mogilno ...	Pakosch ...	1866	16
Breslau ...	Reichenbach ...	Reichenbach ...	1858	45
Magdeburg ...	Jerichow II. ...	Genthin ...	1868	30
Schleswig ...	Plön ...	Plön ...	1881	30
Coblenz ...	Neuwied ...	Dierdorf ...	1885	...

Besides these hospitals the Order possesses in Germany, outside Prussia, institutions in Plochingen, Ludwigslust, Riesa, Niederwesel, as well as Beyrout in Syria.

In all these institutions, the building and internal arrangements of which have been carried out under the superintendence of the Order, the Knights act as curators, and thus become acquainted with the system of attendance upon the sick, while the nursing is done by deaconesses in virtue of the compacts between the Order and the various deaconesses' homes. Three of these hospitals (Sonnenburg, Polzin, and Beyrout) are maintained directly by the Balley, the rest are supported by the local habitations. Where local funds are insufficient contributions are made from the revenues of the Balley. It is a rule of the Order that no patient who can pay shall be admitted free; the amount charged, however, is far below the actual cost, and it is only in the case of those who are absolutely without means, and whose relatives are also unable to contribute, that admission is given without payment.

The hospital in Beyrout was founded in 1861 for fifty-five beds, on the occasion of the persecution of Christians in Syria. In Jerusalem, once the cradle of the Society, there is likewise a station, and since 1858 a hospice. Not only are persons who can pay admitted at their own charge, but the institution is also open to travellers, artisans, and vagrants, who are entitled to free board and lodging there for a period of fifteen days. The Order has also organised and maintained (1) four free beds in the Frederick William Hospital, Hertford, Westphalia; (2) two beds in the Deaconesses' Hospital, Jerusalem; (3) a contribution to the Evangelical Hospital, Münster; (4) an institution for cretins and imbeciles in the Rhine Province (1858); (5) an institution for imbeciles and epileptics at Kanstatt near Stettin (1871); and the distribution of various small eleemosynary funds. During the wars of 1864, 1866, and 1870 the Order established numerous hospitals and lazarettos in the field, besides sending to the seat of war medical men and attendants and nurses for the sick. During epidemics—as, for example, in 1868, when typhoid fever raged, and in 1873, when the cholera was prevalent—the Knights of St. John opened special hospitals for the sick, and otherwise lent assistance to the afflicted,

THE KNIGHTS OF MALTA.

The Knights of Malta, besides rendering service in time of war, have extended their activity to the seasons of peace. In 1871 they purchased the old cloister of Trebnitz, founded in the twelfth century, and with the approval of the Empress Augusta converted it into a hospital, where 600 to 800 sick are nursed annually by the Sisters of Carl Borromæus. The hospital in Rybnik, East Saxony, originally built with private funds, was taken over by the Order in 1871, and there from 500 to 600 patients are nursed annually by Sisters of the Holy Franciscus from the Home St. Mauritz near Münster. Both hospitals are under the management of specially delegated members. All medical matters are entrusted to the district doctor. It was not until 1880 that the Order had any capital fund; but in that year the estate of one Von Jakoby was left to it, and a hospital, with eighty beds and provision for thirty to forty Catholic imbecile children, was founded at Nieder-Kunzendorf. The Order maintains also free beds in the St. Joseph Hospital, Potsdam, the St. Hedwig's Hospital, Berlin, and the infirmary of St. Joseph in Breslau, as well as a hospice in Jerusalem. The Rhenish-Westphalian branch of the Order devotes itself to the needs of the wounded in time of war, in which connection the Prussian Society for the care of sick and wounded soldiers in the field must be mentioned. During times of peace the Society's operations are confined to assisting invalids, encouraging the training of nurses, and forming supplies of bandages and the like.

THE PRUSSIAN LADIES' SOCIETY.

A very important body is the Prussian Ladies' Society, founded in 1866 under the patronage of the then Queen Augusta of Prussia, to continue during times of peace the activity which so many women had shown in caring for the wounded at the seat of war. It was to work not only in connection with the Prussian Society just alluded to, but it invited all provincial ladies' societies to become affiliated to it. Its badge was a red cross on a white ground. It was constituted in 1867, and in 1868 had no less than 250 affiliated societies. In 1869 it became possessed of all the rights of a corporation.

It will be useful to quote the following paragraphs from the Statutes of 1867, as revised in 1869, showing the objects of the society.

"This society, having its seat in Berlin, formed on the 11th of November, 1866, out of the lady helpers of the Prussian Society for the care of sick and wounded warriors on the field, pursues, with all the societies affiliated to itself, the following objects :—

"(1) In time of war it devotes its energies, always under the guidance of the said society, to the care of the sick and wounded.

"(2) In time of peace it manages the society's various depôts, and also (a) assists in seasons of sudden distress, as by floods, infectious disease . . . (b) assists in the care of the sick by training nurses, in founding new and improving old hospitals, in furthering lazarettos, in short, in all possible directions."

The members are women of reputation who pay sixpence a month to the funds, or extraordinary members who have bound themselves to make a regular money contribution to the society chest, or associates who have once made a present in money or other necessaries. The board consists of six gentlemen and six ladies, partly chosen by election among the members, and partly nominated by the Empress. Annually there is a meeting of all the members of the society. Wherever there are ten members they may form an affiliated branch. These latter concern themselves principally with the care of the poor and sick. Seventy-two societies devote themselves principally to the maintenance and support of hospitals, infirmaries, workhouses, children's hospitals, and the training of nurses ; while the other societies are busied with district work, orphanages, and the like. The following table will give some idea of the work of this important society :—

Table showing the Activity of the Prussian Ladies' Society.

Province.	Hospitals.			Nurses.				
	Members.	Locality.	Amount Expended by the Society.	Members.	Station.	Lay.	Clerical.	Amount Expended by the Society.
Brandenburg ...	8	Neu-Ruppin, Seelow, Prenzlau, Küstrin, Beeskow, Frankfurt-on-the-Oder, Soldin, Kottbus	£136	31	Potsdam, Freienwalde, Frankfurt-on-the-Oder, Prenzlau, Neu-Ruppin, Küstrin, Drossen, Spremberg, Beeskow, Lübben, Seelow, Zielenzig, Spandau, Luckau, Arnswalde, Soldin, Landsberg	9	22	£302

Table showing the Activity of the Prussian Ladies' Society—continued.

County.	District.	Locality.	Designation of the Home or Sphere of Labour.	Erection or Taking over.	Sisters.	Beds.	Number of Patients for 1884.
Aurich	Leer	Weener ..	Hospital for Rheider Land	1883	2	11	35
Minden	Minden ..	Minden in Westphalia	Dr. Walzberg's Clinic	1882	1	24	247
Cassel	Rinteln ..	Schauenstein	Heye's Manu- factory	1884	1	..	300
Kingdom of Saxony	..	Dresden ..	Children's Hosp.	1878	4	70	687
Duchy of Brunswick	..	Blankenburg	Borough Hosp. ..	1885	1	12	..

THE LADIES' LAZARETTO SOCIETY.

The Ladies' Lazaretto Society in Berlin was founded in 1866 by the Empress-Queen Augusta. The Statutes of the 9th of November, 1882, declare its objects to be (*a*) in war to assist from private sources the military authorities in the care of the sick and wounded ; (*b*) in peace to train voluntary and paid nurses, and to educate itself for the possible duties of war by attention to lazarettos in general, and specially by the collection of reports and in the study of experiments in the whole region of lazaretto building and management, and also by the accumulation of supplies of money.

It will be unnecessary to refer in detail to the numerous other societies, because they present very similar features. They are Protestant, Evangelical, or Roman Catholic, and concern themselves principally with the care of the sick from the point of view of nursing, or with general benevolent objects, such as almshouses, orphanages, and refuges.

GROWTH OF THE HOSPITAL SYSTEM IN GERMANY.

It will be well, before describing in greater detail the evolution of some of the most important hospitals in Germany, to glance at the gradual development of the type of building to be found in the more modern German institutions. The Paris Commission of the Academy of Sciences in 1786 and 1787 worked out results which have formed the basis of hygienic hospital building ever since, and which were stated to be copied from the pavilion system adopted for the Stonehouse Hospital, Plymouth,* about thirty years earlier. It is to be noted, however, that Le Roy went further than the Com-

* This fact has been copied by numerous writers in various countries, but we believe it to be based upon some curious misapprehension, as we have failed to discover any justification for it.

mission, as, in his report to the Academy more than a century ago he recommended one-storied buildings ; while the Commission in their first report of 1786, proposed two stories for the sick, and in their second report in the following year four stories, by a further provision of rooms on the ground-floor for convalescents, and in the attics for attendants, pantries, and the like. Then came the era of the Lariboisière with its pavilion system, everywhere copied by continental builders. The climate of Continental Europe was pleaded as the reason why a perfect pavilion system could not be employed in Northern Europe, and though in Germany and Switzerland the horse-shoe arrangement gave place more and more to the longitudinal, further than that builders were not willing to go. To this period belongs Rudolf's Hospital in Vienna, which was built on too small a site, however, and had wings joined to the main or pavilion portions.

Subsequent to the erection of the Hôtel-Dieu in Paris, the hospitals which were built might be divided into groups according (1) to the arrangement of wards in connection with offices and (2) to the arrangement of the wards themselves. Among institutions planned upon the corridor system are the Dortmund Hospital, the Deaconesses' Hospital, Frankfort-on-the-Main, and the Cantonal Hospital of St. Gallen. Among others belonging to a different system, with wards and subsidiary apartments in the same block, but with the wards in most cases arranged in separate blocks having windows on both sides lengthwise, is the Jews' Hospital, Vienna. Upon the barrack system coming into vogue after the Crimean and American Wars, the Augusta Hospital in Berlin and the Workmen's Hospital in Essen were built, but of wood ; while the Borough Hospital, Leipzig, was constructed with a view to permanency. There came a time, however, when this system of excessive decentralisation was to some extent departed from, as in the case of the Borough Hospital, Dresden, the Friedrichshain Hospital, Berlin, and the proposals for hospitals in Buda-Pesth. An example of a hospital erected with smaller wards, and with a desire to separate as far as possible each type of disease from every other, is the Borough Hospital of Wiesbaden.

THE GENERAL HOSPITAL, HAMBURG.

It will now be convenient to refer more in detail to the General Hospital in Hamburg and the principal hospitals in Berlin. The

former was founded as early as 1606 to meet the exigencies of the plague, in place of the Plague Hospital in the Neustadt, which had become a danger from its proximity to other buildings. It was not long before the miseries of the Thirty Years' War made it necessary to enlarge this institution, but until the commencement of the present century the want was met by the churches or by private beneficence. The inmates appear to have been at first mostly strangers who had been reduced to beggary by the war, and had fled to Hamburg to escape its ravages. Still all the poor, feeble, and helpless in Hamburg, of whatever kind, were sent here by the authorities or by private individuals. By a decree of the 17th of June, 1676, armed constables, with conveyances and subordinates, had to seek out in the neighbourhood of churches, the Exchange, and elsewhere, all beggars and paupers without distinction, collect them from inns and from the streets, and conduct them to the Plague Hospital, where they would be provided with food and drink before being examined and classified. Only the sick and helpless were to be permitted to remain, the healthy were to be given something towards the expenses of their journey, the godless and froward were to be sent to the House of Correction, and the children to an orphanage. Criminals were not tolerated in the House of Correction, but were sent to the prison. Cases of small-pox and syphilis were transferred to the Hiobs Hospital. The Plague Hospital, so it is laid down in the Acts concerning it, was founded only for the benefit of the honourable poor, miserable, and oppressed ; it was not for the benefit of the infamous.

But it proved impossible to keep out all undesirable elements. As early as 1677 the superintendent complained in vain to the council, that out of 500 inmates, some 200 were orphans who were in no respect suitable cases for the charity. The mischief continued to grow, and was increased by the habit of employing the patients as attendants, a practice which tended to demoralise the staff. To keep matters under control periodical scrutinies were undertaken. The council, and later on the superintendent and overseer, were in the habit of discharging *en masse* all patients whose condition showed improvement, but many of the patients so discharged speedily returned. There was overcrowding, patients were not always carefully treated, and the more respectable of the population were reluctant to come to the hospital at all. Although during the eighteenth century additional blocks were built, the overcrowding among the sick and infirm, the lunatic, and beggar was in no wise ameliorated.

In 1793, Dr. Mumsen, the hospital physician, proposed, but unsuccessfully, the separation of the hospital from the poor-house branch of the charity. In 1797 fresh proposals were made for better administrative and medical management, but all that came of them was to re-name the institution the *Kranken Hof*.

At length, on the 30th of August, 1804, by a resolution of the borough council, the system of management was reorganised. Five overseers from each parish were appointed in open election, and the hospital council assumed a position among the other committees of the town. The duties of the medical superintendent were better defined. He had daily to visit the sick without distinction, the surgeons and their assistants were placed under him, he was made responsible for their acts, and for the diets which he had to fix, and a special dispensary was formed in the institution.

The French occupation of 1806 was the source of new troubles and difficulties. In January 1813 the *Kranken Hof* board of management was dissolved, and the institution subordinated to the so-called "*Commission des Hospices*." On the 30th of December, 1813, Prince Eckmühl unexpectedly issued instructions that this hospital should be emptied within twenty-four hours. The patients had to be taken with all speed to Eppendorf, and were laid in churches and greenhouses, while forty of them were taken care of in Altona. All the buildings were burnt during the night of the 2nd and 3rd of January, 1814, and throughout the siege which followed the medical superintendent, officials, and benevolent citizens, who in some cases contributed money, looked after the patients. On the 13th of August the sick were taken back to the poor-house on the *Theilfeld*, which had served as a military lazaretto for the French. But when, on the 19th of November following, this building was taken over by the Russian military commander, the inmates had once more to be removed, this time to the Lombard building on the *Alster*. The former *Kranken Hof* management was restored.

The Lombard not being suitable for a permanent hospital, the erection of a new one was contemplated, but financial difficulties were encountered, and years were consumed in negotiations and in preparing plans. Finally, the scheme of the architect Wimmel was selected, and the cost of the new building was defrayed partly out of the War Indemnity, partly from the sale of the old *Kranken Hof* Square, partly from moneys which the institution had laid by,

partly by a public subscription, by various presents, and by a State contribution. The foundation-stone was laid in June 1821, and the new hospital was opened two years later. It was designed to contain 1,000 beds, but before the close of the year in which it was opened there were 1,002 patients in the hospital.

Many of the old patients were transferred, and the entire body of nurses and attendants were selected from the patients, the authorities always consoling themselves with the idea that they would die out in time. The increase in the number of sick of all classes was rapid, expenses grew, and various poor-chests and societies entered into compacts for the admission of their invalids. But the number of patients not belonging in strictness to the institution at all, but to various other institutions—for example, incurable lunatics—increased to an alarming extent; for there were in reality no suitable establishments for them, it having been customary for centuries, here as elsewhere, to place all the sick in a common hospital. In short, so great was the overcrowding that sometimes there were 2,000 patients.

In 1855-56 the site was almost doubled to provide for the erection of two wings. In 1858 a steam-kitchen was built, in 1867 a new washhouse was erected, in 1868 an isolation pavilion with 150 beds for small-pox cases was added; between 1868 and 1874 two wooden and four permanent barracks, with heating arrangement, containing 100 beds in all, were built, and in 1875 a large separate administrative building was provided.

After the completion of the new asylum in Friedrichsberg in 1864, all curable lunatics were transferred there, to be followed by the incurable cases six years later, and it is now in contemplation to send the remaining 200 female infirm lunatics to a new institution. Between the years 1843 and 1857 some of the infirm inmates were placed in a subordinate establishment, and during the small-pox epidemic of 1871 some of the male patients were accommodated in drill-sheds near the Holstenthoe.

THE HOSPITALS OF BERLIN.

With reference to the hospitals of Berlin, Formey, who was surgeon to the King, in a work entitled "*Search after a Medical Topography of Berlin*," wrote as follows in the year 1796: "It must be acknowledged that in our public institutions for the sick reform is urgently called for, and that in these respects

Frenchmen, Englishmen, Swedes, and Danes—in a word, most nations—have far surpassed us. Every foreigner who visits our lazarettos, after seeing those of other lands, leaves them full of painful astonishment at their deficiency.” Of hospitals properly so called, in addition to the Charité (1710) and the Asylum (1726), he could only enumerate two—the Jews’ Hospital (1703) and that of the French Protestants (1699). Nay, more, the two reports upon the government of the Township of Berlin for the decades of 1841–50 and 1851–60 have nothing to say of public hospitals belonging to the municipality. The German capital at that period had only State and private institutions. Since then, however, there has been a change which is much to the credit of Berlin. Two hospitals have been built, which are models of their kind, and are as much admired by strangers as those in Formey’s day were contemned. In the year 1881–82 Berlin expended £67,500 on her hospitals. Some advantage arose from the delay which occurred in the erection of these institutions, for the experiences of the American War showed the advantages of the pavilion and barrack system over the old plans which had found favour. Want of money prevented these plans being immediately carried out, but in 1864 a bequest of £7,500 was left for the building of a new hospital, and thus the Friedrichshain institution originated.

We will now give a short account of the existing local hospitals of Berlin.

(a) *Public Hospitals of Berlin.*

Name.	Founded.	Number of Beds.
Royal Charité	1710	1,686
Barrack Lazaretto (Moabit)	1835 and 1871	755
Friedrichshain	1874	700
St. Hedwig	1844	470
Bethany (Deaconesses’)	1847	354
Lazarus	1873	170
Augusta	1866	155
Elizabeth	1833	180
Jews’	1703	150
Elizabeth Children’s Hospital ... ..	...	100
Urban ... ..	...	...

Of these eleven institutions the Charité and the Deaconesses’ Hospital, Bethany, are under the Ministry of the Interior. Monthly reports of all admissions and discharges are sent to the Royal

President of Police, and most of the institutions issue annual reports. The Charité has published complete reports in the Charité Annals since 1879, whilst the publications of the Imperial Health Office contain weekly reports giving particulars of admissions to the larger hospitals.

(b) *Public Hospitals for Special Diseases.*

	Estimated Patients in each Year.
Royal Surgical University Clinic	1,361
Royal Clinical Lying-in Institute	212
Royal Lying-in Hospital	677
Royal Charité branches for :	
(a) The Enceinte	1,188
(b) Ophthalmic cases	680

(c) *Private Hospitals.*

The private hospitals may be thus classified :—

For Surgical cases :	Beds.	For Ophthalmic cases— <i>cont.</i>	Beds.
Prof. Bergmann	10	Prof. Schweigger	14
Dr. Güterbock	26	Dr. Casper	4
Dr. Hadra	15	Dr. Settegast	5
Prof. Dr. Hahn	—	For Diseases of Women and	
Dr. Mayländer	15	Children :	
Dr. Settegast	—	Dr. Behm	—
Prof. Dr. Jul. Wolff	28	Dr. A. Czempin	—
For Syphilitic cases :		Dr. Jaquet	16
Prof. Köbner	—	Dr. Landau	15
For Ophthalmic cases :		Dr. Martin	36
Prof. Dr. Schoeler	45	Dr. Odebrecht	6
Dr. Katz	20	Prof. Dr. Olshausen	17
Dr. Fröhlich	—	Dr. P. Ruge	—
Prof. Dr. Hirschberg	40	Dr. Rumpf	—
Dr. Gutmann	30	Dr. Veit	8

There are also upwards of fifty private lying-in institutions, and many private out-patient clinics belonging to special medical men.

The hospitals of the Holy Spirit and St. George were originally for the leprous. The former was probably founded in the year 1208, and was situate until 1885 on the plot of ground No. 12 Heiligenstrasse. The St. George's hospital was probably founded between 1258 and 1278. Old chronicles show that Ludolphus, Bishop of Halberstadt, granted this hospital in 1278 a letter of indulgence

for a space of sixty days. The building where it stood in the Georgenkirch Place was erected in 1720. Both hospitals are now united in the Neubau, Exerzierstrasse.

The St. Gertrude Hospital and the church belonging to it were built in the Spittelmarket between 1405 and 1408, originally for twelve patients of noble birth, to whom at a later date twenty-four of middle-class origin were added. In 1547 Prince Joachim II. united it with the convent in the Brüderstrasse. It was burnt down during the Thirty Years' War, rebuilt in 1646, and restored, together with the church, in 1744. In 1870 the old hospital was sold for £39,000, and a fresh site secured. Building operations were begun in 1871, and in the following year the right wing was tenanted. The patients receive, besides residence, 18s. monthly, 36s. "wood money" per annum, with free medical attendance and medicine. This is a pattern of several other foundations which are really almshouses, and of which the most ancient are the Jacobs' Hospital (1605), originally intended for cases of plague, the Jerusalem Hospital (1671), opened in 1680 for eight poor aged women, and the Cathedral Hospital (1753), founded by a court preacher from royal gifts and collections.

The Charité Hospital was built by Frederick the First in the year 1710, when the plague threatened Berlin, and consisted of three stories and four pavilions. The city, however, having escaped the disease, the institution was used first as a workhouse and subsequently as a garrison lazaretto; but, owing to its unsuitability for the latter purpose, it became, in 1725, a hospital for the poor under the care of the municipality. A surgical training school and a wing for civilians were added by royal command, and, thus constituted, it was opened in 1727. By a law of 1733, certain taxes on indentures and good-wills were set apart for its maintenance, bringing in an annual sum of £2,850, which at a later date was exchanged for State aid, to the extent of £2,800. At the same time the King made a gift to it of £15,000. Frederick the Great presented it with certain allowances of wood, whilst a donor in 1746 bequeathed £12,000, and a further sum of £6,000 on condition that a certain sum was paid in interest, and that £1,200 was paid to the chest of the Invalides until these had all died out. At that period horticulture, dairy-work, and a brewery were carried on in conjunction with the hospital. Until 1748 the property of the Charité was administered jointly with the other funds for the relief of the poor of the town; but, owing to misapplication by the

Poor Board, after 1748 its estates were separately administered. When the asylum was taken over in 1798, its endowment of £1,325 was handed to the Charité. Frederick William III. presented the institution with the moneys of the Countess Lichteuan, which were, however, at a later date, exchanged for an annual allowance of £150.

On the 6th of November, 1833, Pastor Gossner founded the Ladies' Sick Society, out of which grew the Elizabeth Hospital. That institution was at first intended only as a home for out-nursing, but after two years' existence a few rooms in the Hirschelstrasse were hired for the treatment of the sick. In 1836 other premises were secured, and the present buildings were erected and extended in 1840, 1867, 1872, and 1881. The site is about four acres in extent, and of this about three-quarters of an acre are built upon, the principal block covering 2,000 square yards, the barrack 450 square yards, the mortuary 120 square yards, and the rest being occupied by private dwellings, offices, and the like.

Queen Elizabeth, in 1843, founded in a hired house the Children's Hospital, which bears her name. In the following year a site was secured in the Pionierstrasse for a two-storied building, which now affords accommodation for forty-two patients under a Lady Superior.

St. Hedwig's Hospital dates from 1844, when a Cabinet decree empowered the Catholic Synod to erect a hospital in Berlin and hand over its conduct to one of the Church Orders. Two years later a house was hired, in which a few sisters of the Holy Carl Borromæus began work as nurses. By voluntary offerings in 1853 a large hospital of three stories was commenced on a new site, to which in course of time various administrative premises were added, and in 1880 a home for nurses. The site occupies upwards of four acres.

The Deaconesses' Hospital, Bethany, owes its foundation to King Frederick William IV., who commanded it to be built as a training school and home for the Evangelical Deaconesses in 1847. Up to the present time 220 sisters have belonged to this home, and of these 130 work in thirty-two out-stations. The total area of the site is about eighteen acres. In 1872 a new pavilion was erected in the garden to prevent overcrowding.

In consequence of the cholera scare in 1835 a decree was promulgated that all towns of more than 5,000 inhabitants should have a permanent sanitary commission, of which the head of the police

should be president. This commission was to be composed of a magistrate from the communal boards, several municipal councillors, and a number of medical men selected by the president. Its duty was to make provision in the case of a threatening epidemic, the commune bearing all expenses. On the occasion of previous epidemics the township had to hire accommodation. In 1855 a lazaretto was built for cholera patients. This was converted in 1857 into an institution for incurable female cases, on the understanding that these patients should be removed in the event of cholera appearing. In 1866, however, the hospital for cholera and smallpox cases proving quite insufficient, three other houses had to be hired, and in these four hospitals between the 23rd of June and the 24th of November of that year no fewer than 2,533 patients were treated, out of a total number of 8,196 who came under observation. On the cessation of the epidemic all these hospitals were closed except the one in the Pallisadenstrasse, which was intended to serve for smallpox in the future.

When, however, a violent smallpox epidemic broke out in 1871, probably in consequence of the introduction of the French prisoners of war, three new lazarettos had to be hired. One of these was the affiliated institution to the Tellen-prison Moabit. At the end of 1871 the Commission for lazaretto-building, which was entrusted with full powers, chose a site in the Thurmstrasse, on which sixteen new barracks were erected, together with a management block, kitchen, washhouse, machine house, porter's lodge, mortuary, and sheds, the local authority contributing a sum of £30,000 towards the cost. These buildings were completed by the end of March 1872, by which time, however, the epidemic had passed, and 10,818 patients had been treated in the lazarettos. Nevertheless, the Moabit lazaretto proved eminently useful, for at this very time, through increase of population and overcrowding, there was a great growth in the number of sick children. When the new hospital was opened in 1872 the Charité, Bethany, Elizabeth, St. Hedwig, and Lazarus Hospitals declared that they had no more room for children, who were therefore received in the new buildings. Within six months from its opening 144 sick children were admitted. Later, in the same year, it was used to receive typhoid fever cases. It was closed in the summer of 1873 after a period of continuous service, but in 1875 the communal authorities resolved to keep it permanently for the sick, exclusive of surgical cases, to establish a training school for nurses, and a regular management.

In 1873 there were added eight new barracks and a disinfection department, an ice-house and a shed for burning straw. In 1879 the central heating system was repaired and a park laid out. In 1883 great alterations were made in the washhouse, and isolation barracks were added. Finally, in 1884, a bacteriological laboratory was constructed.

Until the opening of the Friedrichshain Hospital in 1874 Berlin had no hospital of its own, so to speak, the sick having to be treated at the Royal Charité, or received into private institutions at the cost of the township. In 1864, Fasquel, a banker, bequeathed £7,500 for the building of a hospital on condition that it was commenced before 1868, and the preparation of plans for a general hospital to contain 600 beds for patients of both sexes was entrusted to Gropius and Schmieden. The question was again considered by the Town Council in 1867, and it was resolved—(1) that a hospital for 600 patients should be built at the cost of the town; (2) that syphilitic, enceinte, cholera and smallpox cases, and the insane should not be admitted; and (3) that the site should be upon the estate belonging to the commune in the south-east of Friedrichshain. A mixed committee took these propositions into further consideration, and, after consultation with medical and practical experts and architects, they modified the scheme considerably and formulated a new plan, which was laid before the communal board and assented to in 1868. The foundation stone was laid in the same year, and the buildings were opened in 1874. Subsequent additions have included a nurses' home in 1876, an operating theatre in 1881–82, and a pavilion for diphtheria in 1885–86. As early as 1878 accommodation had to be made for 800 patients by laying beds for them in the day-rooms and pavilions on the ground floor, and since the autumn of 1885 additional day-rooms in the upper story of the two-storied pavilion have had to be included, making 635 beds for adults and 123 for children. The whole site occupies nearly twenty-four acres.

The Lazarus Hospital and Deaconesses' Home were erected in 1873 through the exertions of Pastor Boegelhold.

The Augusta Hospital, erected in 1866, and the Victoria Home, which have been founded specially with a view to the training of a nursing staff, and to the various clinics in connection with the hospitals of Berlin and the Berlin University, merit some notice. They mark a new departure in the annals of German Hospitals and establish their promoters to full recognition for wisdom and efficiency.

MANAGEMENT.

In addition to the particulars of management already given it may be useful here to give some information respecting the public authorities which have powers over hospitals and the like, and some details of hospital management in the great centres of Berlin and Hamburg.

The following bodies are concerned with the administration of medicine and hospitals in Berlin :—

1. Imperial Authorities.

- (a) The Imperial Chancellor.
- (a) Ministry of the Interior.
- (b) Imperial Health Office, founded in 1876 to support the Imperial Chancellor in the exercise of the right vouchsafed to him by law of superintending the measures of the medical and sanitary police.

2. Prussian State Boards.

- 1. Ministry of Public Worship, Instruction, and Medicine.
- 2. Ministry of the Interior.

3. Municipal Authorities.

The public health administration, in so far as it is not controlled by the above-mentioned authorities, is guided by the magistracy in co-operation with the members of the municipality, at the head of the municipal management which consists of thirty-six members, being the mayor or chief burgomaster.

General Hospital, Hamburg.

The Hamburg General Hospital was at first managed by the treasurers of the four parishes which had founded it, to whom were added in 1620, for the audit of the annual accounts, certain law officers. After the institution was termed a Plague Hospital the management became much more strict, and its supervision was entrusted to an overseer who was the elder among the deacons of the parish. This honorary post passed annually from one parish to another. Meetings of the lesser college were held for the inspection of the institution, regular account books were produced, and stringent regulations were drawn up for the guidance of the officials. At the outset the pastor was the chief official. He

resided in the institution, and with him were associated a catechist, a sexton, and a schoolmaster. In 1704 the first medical superintendent who had received scientific training was appointed, after a long struggle and much opposition on the part of the pastor and guild of surgeons. The new officer was only required, however, to visit the Plague Hospital once a week, and had at first no influence in the institution. During the whole of the eighteenth century there was a constant struggle for the mastery, in which the influence of the medical men, with the powerful support of the overseers, at length gained the upper hand. By decision of the Borough Council in 1823 the new institution received its present name of General Hospital and a new constitution. The most important points in the latter were that instead of the prætors the two masters of police should enter the grand college, and that six overseers should constitute the special board of management of the institution; that only the sick should be admitted; that the medical and surgical staff should consist of a physician without private practice, a hospital physician, a second medical man to see especially to surgical matters, and several assistant physicians and assistant surgeons.

By the constitution of 1863 the hospital council is to consist of two members of the Senate, a civil member of the finance committee, and six overseers chosen by the council for six years, one retiring annually. To this council is entrusted the management of the General Hospital and the Asylum. It undertakes the business of the old smaller and greater colleges. It holds regular sittings at the end of each month, and extra sittings as circumstances require. All questions of importance must be laid before the president and members of the council for consideration and decision. The secretary records the decisions, which are then circulated among the members and deposited in the town archives. The director and principal physician are, as a rule, present at these sittings. Business requiring immediate despatch, such as personal and disciplinary questions, negotiations with other bodies, and the like, are settled by the president, and duly recorded.

By a law of 1865 a director was appointed to the institution as first official, the rules of his office being laid down by order of the Senate of Hamburg. These rules provided that, "instead of the overseers themselves conducting the management, and the two superior officials, the inspector and steward, having really nothing to do with it, the director shall now, according to the resolutions of

the Hospital College and under control of the same, conduct the business of the institution independently and superintend the entire house." The hospital is now a purely State institution; its income passes into the State chest, and its expenses are provided for out of the State Budget by special consent.

The medical staff was increased by the appointment in 1858 of a physician with assistants for mental diseases; in 1866 of a second physician for the lunatic infirm remaining in the hospital; in 1869 of four of the members of the staff retaining private practice instead of one senior physician without private practice; in 1870 of an ophthalmic surgeon and assistant; and in 1871 of a prosector in the dead-house. In 1872 a medico-chirurgical polyclinic with out patient room was established, as an ophthalmic clinic had already been. In 1863 the surgeon was placed upon a footing of equality with the physician.

The Charité, Berlin.

At first the management of the Berlin Charité was, as we have seen, purely administrative, proceeding from the Royal Poor Board. In 1819 this was replaced by the Government itself, and afterwards by the police presidency. In 1828 the administration was entrusted to a special board, and by a decree of the 7th of September, 1830, "the Royal Board for Hospitals" was set up, and placed immediately under the Ministry. Rust opened in 1817 a surgical and ophthalmological clinic; he was at the head of the board, and it was through his representations that the board was established. All patients were more carefully classified than formerly; not only according to sex and age, but also according to their diseases, and over every division of 180–200 beds a medical superintendent was placed. Certain departments were reserved as clinical institutes, and teachers were appointed. The positions of the house surgeons and house physicians were regulated, the salaries were raised, and a training school was established with a view to improving the nursing. Salaries for doctors and officials rose from £2,250 to £3,600. Through enlargement of wards the number of patients was increased from 5,420 to 9,079 in 1838, and the payments of patients rose from £2,130 in 1828 to £7,110 in 1837. Moreover, certain parcels of land were sold, and economies of various kinds were enforced. Thus, the expenditure on beer, which amounted to £2,100 in 1828, sank in later years to £450, although the number of patients had in the meantime increased. A sum of £31,500 was

laid out upon new buildings, and the hospital in the Ziegelstrasse was erected.

On the death of Rust in 1840 the influence of this board passed over to the special council, whose medico-technical members included the senior physician, senior surgeon, and chief inspector. Meanwhile a second physician and surgeon were appointed who were not allowed to carry on private practice, and into their hands the direction really passed. The question as to how the Charité could best be managed was often raised. Langermann wished to have it entrusted to one of the physicians and the chief inspector. Then it was considered that the superintendent should be an officer in the management department. However, all activity of the original board was brought to an end by the Cabinet decree of the 17th of April, 1846, which placed the Charité under the Ministry for Medicine, with one Major Hirsch as governor. On the departure of that officer in 1849 it was placed under a physician and another officer. Since 1873 the superintendence has been vested in a member of the chief medical council, and a member of the Government Council, always under the Ministry of Public Worship.

The internal organisation of the Charité was regulated in 1737, the institution being noted as a hospital, &c., for the sick. The hospital was for 300 patients, who were by a Cabinet decree of 1797 transferred to another building on the Insel Brücke, the Charité being henceforward exclusively a hospital. There were six departments, for the accommodation of (1) the sick from the garrison; (2) medical; (3) surgical; (4) syphilitic; (5) icteric; and (6) lying-in patients.

Originally containing only 70 patients, there were in 1738, 256; and in 1883, 1,747. The departments now number sixteen, with twelve medical superintendents. Most of the departments serve as clinics of the University. The staff at first consisted of a physician and surgeon, with a house physician who was to be the most capable of the young surgeons trained by the Medico-chirurgical Council. There were also four barber surgeons, two native volunteers with free board and lodging, and two foreigners who had to pay £8 8s. to the Charité chest. In 1743 the surgeon of the general staff exercised a paramount influence.

On the foundation of the Pépinière in 1795 it was determined that, besides an appointment of a staff surgeon from the same body as at the Charité, there should be eleven others who should

pass their ninth semester in attendance at the Charité before entering the army as company surgeons. Since 1804 there have been nineteen assistant surgeons, who received, besides board and lodging from the Charité Board, a small payment made up partly from the military revenues and partly from the Charité chest. The special right of the military schools to make use of the Charité for clinical purposes was legally ratified on the foundation of the Military Medico-chirurgical Academy in 1811. The removal of the medical clinic of G. R. Barbel to the Charité gave occasion for a rearrangement of the relationship of military medicine to the Charité. A conference held in May 1829 decided, and its resolutions were confirmed by royal assent, that the Charité should be primarily a school for the military.

In close connection with the Charité is the Midwives' School for Berlin and Potsdam.

A few words must be added as to the relationship between the Charité, a royal State institution, and the town of Berlin. Till 1835 the poor who could not be attended to at their own homes were sent to the Charité, and the municipality regarded it as a matter of right that they should be treated without charge, while the State looked upon it as a matter of grace. A Cabinet decree of the 3rd of May, 1819, declared that the Charité should not pass over to the municipality nor be municipal property, "it being an institution meant for wider purposes than the mere local care of the poor." These divergent views were reconciled by a royal decree of the 6th of June, 1835, which provided that the Charité should from the 1st of July following stand to the municipal Poor Board in a definite relationship. All the poor of Berlin and the curable insane were to be admitted without charge at all times, but the free admission of those who did not belong to the commune was limited to 100,000 free days of treatment in all.

LEGAL PROVISIONS WITH REGARD TO HOSPITALS IN GERMANY.

All institutions for the sick and infirm are under the protection of the State. The right of the State to watch over these institutions, to make the foundation of all new hospitals dependent upon the consent of the superintending authorities, to expose abuses and deficiencies and see that they are made good, rests upon the following ordinances and regulations :—

The central authority for the management of the whole medical service is the Ministry of Public Worship, Instruction, and Medicine. The sphere of this Ministry in respect of medical matters includes—(a) the supreme guidance of the entire medical and sanitary police, with the exception of the veterinary service; the regulation (b) of the qualifications of the entire body of medical men, the application of those qualifications to the service of the State, and the control of all disciplinary powers; and (c) the supervision of all public and private hospitals.

Directly subordinate to the Ministry is the Scientific Committee of Medicine, Berlin, the business of which is laid down in an Instruction dated the 23rd of January, 1817. Being a scientific, consultative board its functions are to promote and endeavour to perfect all theoretical training in medical studies, and, by utilising the results which knowledge from time to time offers, lessen the difficulties of medical management. It must regard itself as a committee of experts—(a) to further those scientific principles upon which medical science is based; (b) to assist the administration of justice; and (c) to conduct those examinations of the superior medical officers which are not entrusted to the provincial authorities. It must watch over and test all suggestions for improvements in medical science, and take part as commissioners in the visitation of the several medical institutions, public hospitals, &c., such as the Charité Hospital, all midwives' training schools, lying-in hospitals, and asylums. It must investigate on the request of the Ministry the state of whole towns or districts from the standpoint of the medical police, and give its opinion upon documents, plans, or proposals submitted to the Ministry, in respect of criminal matters coming before the courts of law and referred to the Ministry. It must revise dispensary and medical accounts. In short, it must deal with all those matters which require scientific and technical judgment, and were formerly given over to the supreme council for medicine and health and not referred by the latter to the Ministry, the provincial governments, or other State authorities.

In connection with the Ministry there is also the Board of Directors of the Berlin Charité, which in 1846 took over the supervision of that institution from the Board of Curators in hospital matters. By a decree of 1850 the Board was to consist of a medical man and an official.

The Provincial Authorities.

These include—

(a) The presidents-in-chief, who are chairmen of the medical councils and supervise the measures of the governments (see below) and their various subordinate boards, and who are themselves in relation with the Imperial and State Ministries.

(b) The medical councils with seats in the capital of each province. These councils are purely scientific and technical, giving advice to the governments and courts of law, but having no executive functions. Their duties are principally the establishment of general rules for furthering medical culture and the training of the medical men, and the erection or improvement of all public medical institutions in the province, especially when those institutions are for teaching purposes.

The Governments.

The duties of the Department of the Interior in every State Government are to direct all poor relief and sick relief, all institutions connected therewith, and the medical and sanitary police, and to supervise the sale of drugs, the taking of prophylactic measures against epidemics, the suppression of food adulteration, and the like. Wherever it is a matter of extending or dissolving existing institutions which are conducted under State auspices, the government is required to report to, and receive communications from, the executive authorities. Each government has an assessor whose duty it is to concern himself with all matters dealt with by the health and medical police, and to visit from time to time all the more important medical institutions. He is only entitled to practise in so far as his official duties permit.

The District Medical Authorities.

The sheriff presides over the State and communal executive of the district, and, in virtue of his position as chief district police official, likewise over the medical police. In this capacity it is his duty to promote the public health in his district, to initiate measures directed against plagues and epidemics, and to take the lead in superintending all institutions in his district connected with the relief of the poor and sick. In these functions the district medical practitioner acts as his assessor, and, like the sheriff himself, he is directly subordinate to the government. The district medical

practitioners form the executive of the governments in matters of medical and sanitary police, and accordingly are designated for the supervision of medical men and medical institutions within their sphere.

The Provincial Councils.

The following regulations are in force in the provinces of Prussia, Brandenburg, Pomerania, Silesia, and Saxony.

Each province forms a communal council with corporation rights in the management of its own affairs. To the communal council of the province (the provincial council) are attached all districts situate within that province, and all localities belonging to these districts. The capital town, Berlin, is separated from the communal council of the province of Brandenburg. All provincial officials have the rights and duties of mediate State servants.

The provincial director may levy fines upon his subordinates to the extent of thirty shillings, and the superintendents of provincial institutions have a similar power to the amount of ten shillings. An appeal may lie to the county council if made within ten days.

The approval of the Ministry is required in the case of all regulations passed by the provincial parliament concerning asylums, imbecile asylums, and midwives' training schools; and also in the case of all proposals for appointment, discharge and pensioning of officials.

By a law of 1873 certain asylums previously controlled by the State authorities were, together with their endowments and obligations, handed over to the provincial councils for management and maintenance; the Royal Hospital of Löbenicht, Königsberg, was transferred to the provincial council for Prussia, St. Petri's Hospital, Stettin, Gertrude's Hospital, Treptow, and St. George's Hospital, Treptow, to the council for Pomerania, and the Schleswig Asylum to that for Schleswig Holstein.

By the same law the aids previously granted by the State for the assistance of, and by way of reward to, midwives and midwifery pupils were made over to the provincial councils, together with the schools enumerated in the subjoined list, "with all the endowments and duties concerning the same which have hitherto appertained to the State, inclusive of the subsidies hitherto paid from the State chest":—

Table of Midwifery Schools transferred to the Provincial Councils.

Council.	Midwives' School.	Annual Subsidy.
Prussia	Gumbinnen and Danzig	£932
Brandenburg	Frankfort-on-the-Oder	377
Pomerania	Stettin	455
Posen	Posen	341
Silesia	Breslau and Oppeln	933
Saxony	Magdeburg, Erfurt, and Wittenburg	866
Hanover	Hanover, Hildesheim, Celle, Osnabrück, Aurich	1,910
Westphalia	Paderborn	167

REGULATIONS DEALING WITH THE ERECTION OF INSTITUTIONS.

Hospitals may be classified as public or private. A hospital upon which has been conferred the rights of a person in law by no means becomes in consequence a public hospital. These rights simply mean that the hospital may appear in courts of law, may dispose of property, and enter into contracts without its representative being answerable. The terms "public institution" and "property of a person in law" have nothing to do with each other. A public hospital may first mean one managed by the public authorities, such as the Charité in Berlin, all midwives' training schools which assuredly are not persons in law, or an institution which is open to every one. To this latter class belong, for instance, all private asylums. The contention, that a public institution without the property of a person in law has no meaning, is accordingly wrong, and similarly the view that public sanction vouchsafed to an institution renders it at once a public establishment is incorrect.

The principles which govern the State sanction of charitable foundations and institutions require that only such institutions of general utility as can be regarded as being for the relief of the poor and sick can receive such sanction for their statutes, so as to constitute them "persons in law," and invest them with the rights of a corporation. Other institutions, even when they serve benevolent objects, such as hospitals which admit patients on payment, require, before they can be endowed with the rights of a legal personality and the capacity of inheriting property, a special Act securing to them the rights of a corporation. Societies which found these institutions do not themselves obtain such rights, although the

institutions may ; and it is therefore necessary to consider society and foundation separately. The president-in-chief, as representative of the State authorities, is left to sanction the establishment of new and the extension of already existing hospitals. Accordingly, the statutes, even when corporation rights have already been conferred, must be confirmed by the president.

As regards the foundation of private institutions, the German law of 1883 provides that proprietors of private hospitals, lying-in institutions, and asylums must obtain a concession from the superior executive authorities, and that this may only be refused—(a) when facts show that the proposed proprietor is untrustworthy in respect of the guidance or management of the undertaking ; (b) when his descriptions and plans do not satisfy the structural and other technical requirements of the health police.

The first of these provisions has aroused difficulties as to whether by the trustworthiness which the law requires is to be understood simply good conduct, or such personal qualifications as shall guarantee proper conduct and management of the institution. Accordingly, in the different States of the German Union widely varying standards have been set up. A new reading of the provision endeavours to secure that there shall be present in the management such a degree of prudence, experience, and knowledge, on both technical and administrative points, as may be requisite to maintain the character of the institution as one of general utility. The State has the right to demand that the proprietor, whether in his own person or in that of a trustworthy representative, shall offer guarantees in the directions indicated that due care will be taken in the interest of patients. The second proviso also has been altered so as to require the exhibition of plans and descriptions which shall make clear the arrangements of the proposed institution ; not, however, as was desired on the part of medical men, the exhibition of a programme of working which should limit the proprietor in the treatment of the patients entrusted to him, but only that the proposals should satisfy the demands of the health police without regard to the requirements of the art and science of medicine.

Midwives are required to hold certificates after examination from the legally constituted authorities.

The erection of such buildings as are likely to occasion noise and disturbance must be notified to the local police authorities, and if there are hospitals or the like in the neighbourhood, the decision

of the superior executive authorities must be taken as to whether the proposed buildings are admissible, or whether some modification of the plan is necessary.

In sanctioning the erection of private hospitals, asylums, and lying-in institutions, the authorities may specify a period within which the work must be commenced. Where such a period is not fixed the sanction lapses if not made use of within a year, but an extension of the time may be granted on adequate reason being shown.

REGULATIONS WITH REGARD TO ADMISSION INTO INSTITUTIONS FOR THE SICK.

Every German in need is entitled to relief at the hands of his Poor Board in respect of the necessities of life, relief in sickness, and decent burial on his decease. This relief may be granted in a workhouse, a hospital, or by assistance out of doors.

The superintendents of all hospitals must at once notify to the police any outbreak of infectious disease, and all that is possible must be done for the isolation of the sick where special accommodation is not available. On the occurrence of smallpox in a hospital where there is no special smallpox hospital at hand, all the inmates must be vaccinated or revaccinated. All attendants and nurses must be revaccinated when a period of five years has elapsed since previous vaccination. In the case of patients suffering from other infectious diseases being admitted into a hospital, corresponding measures of precaution are to be taken, and especially the regulations with reference to notification and isolation must be carried out. On convalescence the rules as to disinfection must be observed.

REGULATIONS REGARDING THE VISITATION OF INSTITUTIONS FOR THE SICK.

The following regulations are only applicable in so far as the institutions possess the character of poor-houses :—

All poor-houses, hospitals, . . . are under the special care of the State.

Those institutions, moreover, which by their deeds of foundation have special overseers appointed, remain none the less under the supervision of the State. This supervision, however, is limited to

securing that the wishes of the founder are adequately carried out, and that nothing is done which is contrary to the general purpose of such foundations. The State is empowered to compel visitations of such institutions and to reform any abuses and deficiencies in accordance with the law. Above all, the State must take care that the revenues are duly administered.

There must also be borne in mind the regulations which place all hospitals in respect of police under the supervision of the governments. The exercise of this right at any time and in any way to inspect hospitals by extraordinary visitations, and to take cognisance of their condition, is one to which the institutions are without exception liable. Of the utmost importance for the proper development of the hospital system have been these State visitations. This fact no one saw more keenly than King Frederick William IV. when in August 1843 abuses were brought to his knowledge. Without hesitation he directed that a general visitation should be made, and that without giving any notice. The results only too fully confirmed the information which had reached him. The following are some of the deficiencies which were discovered—want of system in the separation of the sick ; uncleanness ; the drying of linen and wood behind stoves ; the general and indiscriminate use of night utensils and towels ; an absence of any means of identification in medicine bottles and bedsteads, articles of clothing and diet in the case of the sick ; wards too small or otherwise unsuitable ; insufficient provision for ventilation and heating ; insufficient or bad attendants and nurses ; shortcomings on the part of officials and doctors ; defective dietaries and dispensaries ; faulty regulations in the dealings of the institution as regards the admission and discharge of patients. The discovery of these abuses has been of the utmost importance in the development of hospitals.

More recently a circular of the Ministry of the Interior, dated April 11, 1866, prescribes further regulations respecting visitations. This document was sent to all district doctors and magistrates by the Royal Government of Frankfort, and enclosed with it was a protocol of December 28, 1865, which ran as follows :—

“ In the course of the recent medico-technical inspection of a large number of municipal hospitals of the various counties it has transpired that a great many abuses are rampant. Accordingly, while calling upon the magistrates to pay more serious attention to the erection and management of hospitals and borough lazarettos, the following is appended :—

“The district medical practitioners, as the executive of the police within their districts, are required to devote special care to the erection and management of the borough hospitals of their place of residence, and also of those within the entire district, and for the saving of expense, on occasion of other journeys in the service and in company with the magistrate, have to see into these matters and propose remedies.

“In all towns of a county also in which hospitals or municipal lazarettos are situated they must submit these institutions to a thorough inspection once a year. These visitations must be undertaken by the magistrate, with the co-operation of the communal (hospital) doctor, and, in the case of boroughs where district medical practitioners are resident, by them likewise, in the months of February and March of each year, and reports are to be drawn up in the form sketched below. These reports must be signed by all the visitors, and sent in on or after April 15. Care must also be taken that in inspections of dispensaries by the county medical councillor, extraordinary and unexpected visitation of borough hospitals shall follow.’”

Form of Report.

I. *Introduction.*—(1) By whom authority was given to the committee of inspection. (2) Names of the commissioners.

II. *Position and Arrangement of the Hospital.*—(3) Geographical and topographical situation. (4) Description of the buildings. (5) Drinking water and wells. (6) Drainage (how are the privies kept separate from wells?). (7) Position of stairs, floors, and corridors. (8) Position of wards (their number, if divided according to the sexes). Is the restraint system in force for maniacal lunatics? (9) Warming and ventilation. (10) Nature of floors, doors, and windows. (11) Nature of the bedsteads (of what material, how arranged, whether narrow or wide). (12) Lavatories. (13) Lighting of the wards. (14) Apartments for attendants. (15) Bath-rooms. (16) The privies (are there night stools in the wards?). (17) Office for burning materials. (18) The lavatory fittings. (19) Stores. (20) Kitchen, washhouse (where situated). (21) Mortuary.

III. *Management.*—(22) The managing authority (whether a hospital committee). (23) The medical treatment (name of the house surgeon; how paid). (24) Attendants and nurses: their number and remuneration. (25) House regulations. (26) Provision for the religious needs of the establishment. (27) Care of the

sick, ordinary diet tables and kitchen tickets. (28) Cost per head per diem. (29) Number of patients on the days of inspection. (30) From what complaints were they suffering? (31) Were they arranged conformably with their maladies? (32) Were their beds and linen clean? (33) Condition of bread, rolls, and other articles of food and diet on the occasion of inspection. (34) How many patients over a space of five years are annually, upon the average, treated in the institution? (35) Is the roll of patients accurately kept? (36) Various remarks and suggestions.

The following is taken from an ordinance of the Royal Government at Potsdam, dated November 1872 :—

In every hospital an admission and sick ledger must be kept stating the following particulars :—(1) Christian and surname, age, condition, religious belief. (2) Ordinary dwelling place, or that for the previous two years. (3) Who has transferred the patient to the hospital, and who pays his expenses. (4) Day of admission. (5) Character of illness. (6) Date of discharge, whether cured, improved, or deceased.

The following rules with regard to requisites for the erection of asylums and hospitals, and the necessary fittings, deserve also to be noticed :—

1. The institution shall be constructed for a stipulated number of patients. It shall always be maintained in readiness to receive that number. The male and female departments shall be completely separate.

2. The following apartments must be provided :—

(1) Several wards, with a special one having suitable fittings for securing maniacal cases. (2) Bath-rooms, with access free from draughts. (3) Kitchen. (4) Washhouse, separate from the kitchen. (5) Mortuary, which must be airy and separate. (6) Rooms for keeping linen and fittings, and for the medical officers. (7) Rooms for keeping the effects of patients. (8) Privies, which must be at a sufficient distance from the sick rooms, situated at least 100 yards from all wells, and be kept constantly disinfected. (9) Rooms for the attendants ; and storerooms for fuel.

3. The wards must be light, dry, clean, airy, with suitable arrangements for heating and ventilation, and in all new buildings at least $11\frac{1}{2}$ feet in height. Ordinary floors, doors, and other woodwork must be prepared with varnish. Likewise all walls must be painted in oil to a height of 6 feet.

4. A space of 1,000 cubic feet must be allowed for each bedstead.

5. The following articles must be provided :—

A. In every ward : (1) The number of beds, preferably of iron frames, required for the normal number of patients. (2) To each bed a stool, table with glass, chamber-pot, and a spittoon. (3) A washstand with appurtenances.

B. In the matter of bed and body linen :—

(a) To every bed : (1) A double suit of good white linen bed-clothes ; (2) Three linen shirts ; (3) Two pairs of stockings ; (4) Two cravats ; (5) Two handkerchiefs ; (6) Four towels.

(b) To every bed for men : (7) Two winter and two summer coats ; (8) Two pairs of winter and two pairs of summer trousers.

(c) To every bed for women : (9) Two sets of underlinen ; (10) Two cloaks and jackets ; (11) Two night-caps.

REGULATIONS WITH REFERENCE TO HOSPITAL STATISTICS.

In a report of the 7th of May, 1877, to the Minister of the Interior, the Royal Statistical Office declared their readiness to carry out the resolution of the Federal Council, requiring them to make the first collection of mortality statistics throughout all the hospitals in the month of January 1878, in accordance with the schedules drawn up by the Imperial Medical Statistical Commission, and to conduct the collection of the said figures for Prussia. The Royal Statistical Bureau resolved that the schedules should be prescribed by the central body, not by the physicians of the institutions involved.

The following further rescript of the Minister was issued on 25th May, 1880 :—"The Royal Statistical Office has pointed out that, in the collection of these statistics, a large number of hospital boards have sent in incomplete and inaccurate returns. But for every institution regular book-keeping is a necessity, and I impress upon the Royal Government the desirability of their seeing that adequate particulars are returned for all the hospitals of their districts. In this respect it is desirable that the written statements of admission of patients should give :—(1) Christian and Surname, age, family, religion, occupation. (2) Residence (in large towns the flat should be mentioned). (3) At whose cost (for example, Master, Poor Chest, or Poor Board). (4) Disease or injury."

The Minister found it necessary to explain the meaning of

general hospital, which he did as follows. General Hospitals in the sense of the above resolution include those with a variable sick-roll and with patients afflicted with a great variety of ailments ; also such institutions as are for the relief of poor persons either on account of incurable disease, infirmity, old age, or incapacity for work possibly throughout the rest of their natural lives. But in all these latter cases a strict line of separation must be drawn between the sick properly so called and the other chronic patients. The latter are not included in the statistics drawn up under this section.





CHAPTER XXII.

HOLLAND.



THE earlier Dutch hospitals owe their origin, like those of most European countries, to the charity of the founders of religious houses, monasteries, and the like, the receiving houses for the sick being usually under the same roof as the religious houses or connected with them. These benevolent institutions were of a more comprehensive character than the hospitals of the present time, and combined the attributes of a hospital, a workhouse, and a refuge under one administration. Hospitals of a more distinctive character, though still under the control of religious communities, seem to have existed before the middle of the fourteenth century, and the remains of old hospital buildings are still in existence. In some historical records dated 1360 definite mention is made of a hospital called the "Old Hospital" in Amsterdam. In records of 1580 there is further mention of this hospital (under the title of St. Peter's Hospital) in conjunction with two other large hospitals, the "St. Elizabeth" and the "Liebe Vrouwen," and three other smaller institutions then established in Amsterdam, all of which up to that time were under religious direction. In the year 1580, the municipality undertook the management of the charitable institutions and hospitals, and contributed such sums for their support as were necessary to supplement the charity of private persons inclusive of legacies and endowments. In 1601, the hospital accommodation in Holland was largely augmented by the erection of "lazarets" throughout the country for the treatment of sufferers from the pestilence which was then raging. These buildings were retained and used as hospitals when the epidemic was over.

At the present time, including the military and naval institutions, there are upwards of one hundred large hospitals in Holland. These are managed under various systems—by the State, by the municipality, by the State and municipality conjointly, or by one or other of these in conjunction with societies, and by institutions appertaining to religious congregations or sects.

The State controls and finances the military and naval hospitals and subsidises some other institutions.

The municipality has part or entire management of the principal hospitals in the larger cities, and supplements their incomes as far as is necessary. In the University towns the hospitals are used for clinical purposes in connection with the medical schools.

NURSING SYSTEM.

The nursing of the sick in Holland is entrusted to (*a*) Sisters of Mercy, (*b*) Deaconesses, and (*c*) lay nurses, male and female. The Sisters of Mercy receive their training in the convents. The Deaconesses, who are members of Protestant communities, are trained in institutions specially set apart for the purpose. They confine their labours, for the most part, to nursing the poor in their own homes. The lay nurses receive their training at the Municipal Hospital in Amsterdam, and in the hospitals at Utrecht, the Hague, and elsewhere. They attend lectures and receive instruction from the doctors of the Red and White Cross Societies.

Besides these, there is a large number of untrained nurses who gain their knowledge by service in the wards of the hospitals. Where lay nurses are employed there is generally a female superintendent of nursing in charge. In the military and naval hospitals all the attendants are male.

MILITARY AND NAVAL HOSPITALS.

There are forty military and naval hospitals in Holland. Most of these institutions date from the beginning of the present century, though as early as the year 1587 the Church of the so-called "Old Nuns" in Amsterdam was converted into a military hospital. Of this institution the Earl of Leicester is said to have been the founder, and for some time it was called the "English House." The real origin of this title was that certain soldiers in the train of the Earl of Leicester, who was then serving in Holland, were the

first patients treated in the hospital. In the military hospitals patients are treated by military doctors assisted by military attendants and hospital orderlies. Where no military hospital exists sick soldiers are admitted into civil institutions by contract. There is no regular system of construction in the military hospitals, many of them having been old buildings adapted to their new purpose. Those at Rotterdam, Utrecht, the Hague, Amsterdam, and De Helder, being of comparatively recent date, are built on the corridor system, those at Gouda and Amersfoort on the pavilion system, whilst those now in the course of construction at Rotterdam, Amsterdam, and Maastricht are types of the pavilion and corridor systems combined.

THE INNER, OR ST. PETER'S HOSPITAL, AMSTERDAM.

There are several hospitals in Amsterdam under various systems of management. The oldest of these, dating from the year 1360, now bears the name of the Inner, or St. Peter's Hospital, and is the largest and most important one in the city. It is a general hospital for both sexes, and contains a large lying-in ward. It is composed of buildings which were originally occupied as two convents and separated by a canal. The two establishments are now connected by bridges, one of which is a continuation of a gallery in the hospital and is roofed over. There are drying-fields, gardens, and open spaces within the hospital enclosures. Some rather curious details relating to this hospital are mentioned in an account of the institution written in 1820. The hospital at that date had a capacity for 515 patients, but this number was frequently exceeded. The patients were accommodated in four large and lofty medical wards and two smaller surgical wards, and when these were full the overplus of patients were consigned to garrets which were both inconvenient and insanitary. The infants of patients under treatment in the hospital were placed in the care of the Sisters in charge of the Orphanage. The largest male and female wards, containing eighty and seventy-six beds respectively, had galleries on each side of the wards, the width of which corresponded with the length of the beds. The beds were placed immediately under the galleries, and were coupled together with space between every two. From the galleries hung green curtains, which could be made to completely enclose the beds when desired. In the centre of the wards, forming a middle passage, a free space was left of from 16 to

20 feet, but part of this was frequently occupied by extra beds. Above the galleries were revolving windows, which created such a draught that canopies of cloth had to be stretched above the central beds. The bedding consisted of loose straw, upon which was placed a bag of chaff, with chaff bolster and pillow, two linen sheets and a woollen blanket. The wards were heated by one stove in the centre of each, and the lighting was by lamps consuming ordinary oil, which created considerable smoke.

The hospital was under the management of a committee, consisting of members of the municipality and the chief medical officer. The nursing was originally under the direction of the dispenser, but in 1820 male and female superintendents of nursing were appointed. The nursing staff was far too small, only two or three nurses being allotted to a ward of seventy beds and upwards, and the salaries of the nurses and of the medical staff were absurdly low. The head physicians received only £41 10s. each per annum ; and the surgeons, whose duties were more onerous still and who had to provide their own dressings and instruments, were paid £16 3s. 4d. each per annum. They were in consequence compelled to augment their incomes by private practice, to the neglect of the patients. The nurses' wages amounted to from £3 10s. to £4 4s. each per annum.

The diet for the patients was also remarkable. The breakfast consisted of bread and a bowl of milk ; dinner of vegetable soup and meat, or groats with milk and butter, or vegetables stewed in bouillon or fat, or of rice with milk and butter. Groats, or bread and milk, were served for supper. Everything was supplied to the patients in wooden bowls. Tea and coffee were not provided, and the head nurses increased their incomes by selling these and other articles to the patients.

The hospital possessed a dispensary in common with the town. At this period it contained only one bath, which, moreover, it is stated was seldom used. After 1820, however, improvements and additions were gradually made, and a large lying-in department was added in 1871, with accommodation for 100 patients. This new maternity wing contains, besides many small apartments, twenty rooms, each with four beds separated from each other by curtains. A special room for delivery is provided on the ground floor, a hydraulic lift conveying the patient thither, bed and all, when required. The ventilation is excellent, and neatness and cleanliness prevail here as in all other parts of the hospital.

The number of women availing themselves of the advantages of this institution varies from 300 to 500 per annum. The nursing staff of the hospital has also been increased of late, and the attendance on the sick is much improved. Some 40 metres air-space (about 1,400 cubic feet) is allotted to each bed, and the unwholesome garrets are no longer used. The food also is of superior quality, and books are provided for the amusement of the patients. The medical staff for the Inner and Outer Hospitals combined consists of six resident and six visiting physicians, and the nursing and household staff numbers 150 persons. The treatment of patients is gratuitous if they are very poor; but, under an old decree, the property of patients dying in the hospital falls to the institution unless there are heirs, or the patient has paid a daily sum of one florin for maintenance.

Notwithstanding the reforms that have been gradually effected in the hospital, it is considered that much still remains to be done to place this institution on a really satisfactory footing, and further improvements are contemplated in the immediate future, including the demolition of some parts of the hospital which are no longer in use, and the erection on the space thus cleared of a two-storied building for clinical wards to contain 188 beds. The reconstruction and improvement of the operating rooms and dispensary are also contemplated. If all these changes take place there will then be accommodation for 524 patients. The sum required for these alterations is estimated at 315,500 florins—*i.e.* about £26,291.

THE OUTER HOSPITAL, AMSTERDAM.

Associated with the Inner, or St. Peter's Hospital, is an institution originally intended for the treatment of fevers, contagious diseases, and lunatics, called the "Outer Hospital," which had accommodation for 146 patients, exclusive of lunatics. The hospital is built in a quadrangle entirely surrounded by canals, and having a large courtyard in the centre. There are other open spaces on that side of the institution which is set apart as a lunatic asylum. The institution is managed on the same system as the Inner Hospital, and such applicants as are not deemed fit cases for admission into the Inner are transferred to the Outer Hospital by boat. Further, to relieve the overcrowded condition of the Inner Hospital, some of its surgical cases were consigned to the Outer. This caused overcrowding in the Outer Hospital, necessitated the

use of the garrets as wards, and in part accounted for the high rate of mortality, which reached more than 20 per cent. in 1820, the year from which our first account of the hospital dates. Since that time further accommodation for venereal and other patients has been added in the form of cottages, and the entire rebuilding and reconstruction of the institution is now in process of completion. The new hospital is to be for non-contagious diseases only, and will have a capacity for 392 inmates. Thus, accommodation for 916 patients will be provided in the Outer and Inner hospitals combined. Every means is to be taken to render the hospital an efficient medical school. The cost of these improvements is estimated at 1,457,500 florins, or about £123,000.

ROTTERDAM.

The hospital on the Coolsongel at Rotterdam has recently been enlarged and improved, and is now on a very complete scale. It is under Government direction, and has a capacity for 425 patients suffering from non-contagious, sporadic contagious, and mental derangements. The patients are divided into five classes, and all except the fifth class are paying patients. Patients coming under class I. pay 16s. 8d. per diem, and those under class IV. pay 1s. 3d. per diem, the intermediate classes paying in proportion. The wards are placed in a central or main pavilion building, with four cottages situated in an extensive garden at the back. There are bath-rooms for Roman, electric, sulphur, and other baths, disinfecting and operating rooms, and a detached mortuary. Throughout the wards, wherever possible, all corners have been rounded, and projections avoided to prevent the harbouring of dirt. The wards are coated with tiles, and all the plaster work has been painted over. The floors are of stone and oak. The entire building is heated by means of steam, and a most complete system of ventilation, with a supply of pure air of an equable temperature, is in operation. The air is not received direct through windows or doors, but is first warmed or cooled as occasion may require, the proper amount of moisture being added before it enters the wards by means of tubes. The ventilation and air supply in the cottages is on a different but no less satisfactory system. Every precaution is taken against fire, and a hydraulic lift is provided for the use of the patients.



CHAPTER XXIII.

ITALY.

THE OPERE PIE OF ITALY.



R. F. B. SANBORN not long ago published an article in the New York *Independent* under the title of "The Reorganisation of Charities in Italy," describing the Bill which was passed by the Italian Parliament on the 7th of May, 1890. The object of this Bill, which was introduced by Signor Crispi, was to transfer the charge of the public charities from the clergy, who had managed them up to that time without any responsibility to the civil government, and to hand it over to the local authorities. We cannot better introduce this chapter on the Italian hospital system than by giving the following extracts from Mr. Sanborn's paper:—

"The *opere pie* (pious foundations) of Italy declare by their name that they are religious institutions, and, as such, they have generally been administered by priests, as were the corresponding foundations in France before the Revolution of 1789, and those of England before the Reformation. They are quite various in their character, the official inquest of the Italian Government, recently made public, having arranged them in thirty-three classes. According to this report these charities number 21,819, besides 2,690 banking institutions (pawnbrokers, loan funds, &c.), which have or did have a charitable character. The property of these 21,819 various charities was reported as worth 1,731,000,000 lire, or £70,000,000, but a better estimate is £80,000,000; and their yearly income, including collections and gifts, reaches the great sum of 95,507,000 lire, or almost £4,000,000. Many of them have a religious rather than a distinctive charitable character; but the great majority

either maintain hospitals, infirmaries, almshouses, asylums, &c., or else distribute food, money, clothing, &c., to the poor of the city or town where they are, or aid widows and apprenticed children in that locality. Many of them are educational in their scope, and their education means always a close attention to the doctrines and practice of the Roman Church. Few persons, even in Italy, were aware of the extent and importance of these semi-religious charities until the official investigations disclosed it; nor even then until Signor Crispi, the Prime Minister, in his speeches before Parliament, and Signor Villari, a Florentine Senator, in a long article published in the *Nuova Antologia* in May (1890), gave them the information in a portable form. The Bill* reorganising these charities was passed by the Italian Chamber of Deputies, December 19, 1889; reported to the Senate by Crispi, December 23, 1889; and finally passed May 7, 1890, in the Senate, but with considerable modifications against which Crispi protested.

These ancient Italian charities have been, from time immemorial, in the hands of the Catholic Church. They have grown up during the past twelve or fifteen centuries, and some of them may even date back to the time of Constantine, before the Latin and the Greek Churches separated. They are of many kinds—educational, religious, and eleemosynary, as we see—and they have accumulated in the course of centuries a vast property. In his speech of the 21st of May, 1890, Crispi said:—

“‘The *opere* of charity in Italy altogether control a property of £80,000,000; their yearly income is £3,600,000, and might be £4,000,000 if there was better management. Their expenses, apart from the charity they distribute, are, in gross, £600,000 for taxes, £320,000 for charges on the property, and £680,000 for expenses of administration, leaving only £2,000,000 out of £3,600,000 to be expended for charitable uses. But of the whole 21,819 institutions less than 7,000 have property enough for their needs; the yearly income of 10,000 *opere pie* is less than £20 each, and only 4,200 have an income of between £20 and £60 a year.’

“In this calculation all the endowments are reckoned, whether their object be educational, religious, or eleemosynary. But the strictly charitable institutions are 8,215 in number, with a property of 180,000,000 lire, or £7,200,000, and an income of £400,000. Considering that Italy now has nearly or quite a population of 30,000,000 this charitable fund does not seem very large, and in

* See Appendix.

fact it is always supplemented more or less by money raised among the people in the form of taxes. Rome, for example, with charitable funds of more than £200,000 net income, and with little more than 400,000 inhabitants, raised by taxation last year (1890) more than £60,000, which has gone to increase the fund for relieving the poor.

"In some of these establishments the cost of administering the charity was more than a third part of the whole income; and in general there was complaint that the priests managed them either for their own comfort or for political purposes. He was told in Palermo, for example, that of the large funds which come into the hands of the clerical managers of these charities, only a small part goes to the poor, the rest being used politically, and, as was intimated, against the existing Government of Italy.

"Signor Crispi, who is an old Garibaldian, and not a very ardent friend of the Church, has made up his mind to turn out these clerical managers, and leave the control of the charities to a board in each municipality, from which parish priests are excluded by one section of the new law. His reasoning on this point to the Italian Senate, which voted with him, was as follows:—Granting that the priest is a good man and a friend of the poor, he is still subject to the orders of his bishop, who appointed him and can suspend him, and whom he has sworn to obey. But there are not two co-ordinate powers in Italy, each entitled to obedience; and in the distribution of charity, as in other civil matters, the Government must be supreme. Hence it follows that the priest must not administer charity in Italy; we exclude him, not because he is not a good priest, but because he is under other laws than those of the Italian people.

"Crispi went on to say that the charities themselves must be concentrated and reorganised under the direction of boards elected in each commune. He added:—'The concentration of these charities has several objects in view. To bring under one management all those in one place which have a similar scope is to give unity to their beneficence and economy to their outlay; and we concentrate also those which are now so small as to be useless—particularly the charities of small towns. The result of all this will be frugality in management, activity and efficiency in supervision; it will check professional beggary as well as other abuses. We are making a law which introduces order and liberty in those charitable institutions where till now disorder has reigned.'"

HOSPITAL PROVISION.

Exclusive of lock-hospitals, asylums for the insane, and lying-in hospitals, the total number of hospitals in Italy in 1884 was 1,066, which admitted annually 443,237 patients. These institutions belonged to 1,003 communes, the aggregate population of which was 11,351,427 persons; the remaining 7,247 communes, with a population of 16,659,268 inhabitants, deriving assistance from the communal hospitals in the provincial capitals, in which the largest number of sick is always to be found. Thus the seven hospitals of Rome received 35,568 patients annually; the three of Milan 27,359; the two of Florence 10,641; the two of Novara 9,560; and the seven of Turin 9,221.

The 1,066 hospitals were to the 8,250 communes in the proportion of 1 to 7·73, but this proportion varied in the different compartimenti. On the one hand, the Marches possessed 103 hospitals for 249 communes, a proportion of 1 to 2·44; and on the other hand Sardinia, with 12 hospitals and 365 communes, gave a proportion of 1 to 30·41. Between these two extremes was Rome, with a proportion of 1 to 3·16; Apulia, with 1 to 3·64; Sicily, with 1 to 3·77; Æmilia, with 1 to 3·84; Tuscany, with 1 to 3·91; Umbria, with 1 to 4·07; Liguria, with 1 to 6·28; the Campania, with 1 to 10·55; Piedmont, with 1 to 11·32; Venetia, with 1 to 12·60; Lombardy, with 1 to 15·21; the Abruzzi, with 1 to 20·72; and Calabria, with 1 to 22·77.

The largest Italian hospitals are the Hôtel-Dieu, or Ospedale Maggiore, of Milan, receiving 24,407 patients annually; the Saint Esprit at Rome, 22,123; the communal hospital of Venice, 10,963; the Santa Maria Nuova at Florence, 10,540; the Hôtel-Dieu at Novara, 8,987; the communal hospital at Verona; the Hôtel-Dieu at Cremona, 6,549; the Pannatone hospital at Genoa, 6,463; and the Saint Matthew at Pavia, 6,339. Then come seven hospitals which admit between 5,000 and 6,000 patients; seven others admitting between 4,000 and 5,000; eight admitting between 3,000 and 4,000; 18 admitting from 2,000 to 3,000; 47 admitting from 1,000 to 2,000; 85 admitting from 500 to 1,000; 142 admitting from 250 to 500; 250 admitting from 100 to 250; 156 admitting from 50 to 100; and 307 which receive less than 50. As a matter of fact all the 1,066 hospitals were not actually in operation in 1884, as 30 were without patients, owing either to lack of funds or to their being closed temporarily for repairs.

These hospitals are distributed as follows among the 1,003

TABLE A.—SHOWING THE HOSPITALS OF ITALY IN PROVINCES.

Denomination of Provinces and Regions.	Population of Provinces and Regions.	Number of Communes having Hospitals.	Population of Communes having Hospitals.	Hospitals for						Hospitals treating every kind of Disease except							Annual Average Number of Patients.	Proportion of Patients per 1,000 of Population.
				Men.	Women.	All Diseases.	Special Diseases.	Special Classes.	Special Study.	Contagious.	Chronic.	Chronic and Contagious.	Veneral.	Veneral and Chronic.	Veneral and Contagious.	Total.		
1 Alexandria ..	722,280	341	332	32	..	4	..	..	..	3	14	5	..	3	1	32	4,371	3.32
2 Ancona ..	266,425	51	23	23	..	..	..	..	..	..	..	3	..	..	..	10	1,313	2.58
3 Arezzo ..	338,454	127	10	10	..	7	..	1	..	..	..	..	..	..	..	10	997	2.95
4 Ascoli Piceno ..	238,091	40	15	13	..	..	..	..	..	..	..	6	..	..	..	13	1,804	2.79
5 Asti ..	207,094	71	32	33	..	6	2	..	..	3	10	3	..	1	..	13	1,614	3.72
6 Avellino ..	387,473	128	9	30	..	..	..	..	..	..	4	6	..	..	..	9	694	1.79
7 Basilicata ..	136,858	63	4	36	..	9	2	..	..	2	..	..	..	..	..	30	458	8.40
8 Belluno ..	136,858	63	4	36	..	9	2	..	..	2	..	..	..	..	..	30	458	8.40
9 Benevento ..	241,849	73	4	39,777	1	1	..	..	..	..	..	..	..	..	..	2	1,441	7.11
10 Bergamo ..	385,007	306	24	122,584	24	2	..	..	..	7	2	5	..	2	..	25	11,412	28.91
11 Bologna ..	453,619	58	9	224,936	12	2	1	..	..	..	2	3	..	1	..	2	11,412	28.91
12 Brescia ..	466,630	285	36	151,031	28	2	1	..	..	3	2	3	..	4	3	31	14,415	20.69
13 Cagliari ..	408,341	258	9	41,744	7	3	..	..	..	..	..	..	..	..	..	10	3,574	9.38
14 Caltanissetta ..	247,950	28	5	81,372	5	..	..	..	..	..	..	..	..	..	..	5	2,032	8.39
15 Canicattì ..	374,558	134	2	16,623	2	..	..	..	..	..	..	..	..	..	..	2	617	1.04
16 Carrubasso ..	529,751	145	24	399,009	25	..	..	..	..	5	1	6	..	1	..	25	4,085	6.52
17 Catania ..	529,751	145	24	399,009	25	..	..	..	..	5	1	6	..	1	..	25	4,085	6.52
18 Catanzaro ..	424,776	152	9	66,240	2	2	2	..	..	3	0	1	..	..	..	9	4,123	9.12
19 Chieti ..	346,592	121	5	65,812	7	..	..	..	..	..	..	..	..	..	..	11	1,123	1.70
20 Como ..	597,762	516	11	65,849	10	1	..	..	..	..	3	2	..	1	..	11	2,181	4.10
21 Cremona ..	450,002	151	5	43,009	4	1	..	..	..	..	..	4	..	..	..	1	1,709	3.72
22 Cuneo ..	311,002	133	9	85,095	9	1	..	..	..	..	4	9	2	6	5	43	12,045	38.04
23 Cuneo ..	649,781	263	40	289,094	43	..	..	..	..	2	4	11	9	2	2	43	10,823	16.07
24 Ferrara ..	227,881	16	6	132,332	6	..	..	..	..	..	..	..	..	..	..	3	3,852	17.02
25 Firenze (Firenze) ..	394,519	78	14	310,080	14	2	..	..	..	2	1	5	..	..	..	10	10,769	21.10
26 Foggia ..	235,432	46	12	155,731	12	2	..	..	..	..	..	..	..	..	..	10	10,769	21.10
27 Forlì ..	750,007	202	39	406,164	40	..	..	..	..	7	0	6	..	..	..	43	5,409	15.39
28 Genova ..	311,910	41	13	133,956	13	..	..	..	..	..	..	..	..	..	..	13	10,762	14.34
29 Gironi ..	107,836	20	7	48,868	7	..	..	..	..	..	..	..	..	..	..	13	1,174	42.23
30 Grosseto ..	521,225	150	24	250,495	22	3	..	..	..	..	3	2	..	..	..	7	5,449	59.53
31 Lecce ..	120,083	55	2	103,644	4	..	..	..	..	..	6	1	..	7	..	20	2,433	4.46
32 Leghorn (Livorno) ..	299,912	22	6	125,553	6	..	..	..	..	..	..	..	..	..	..	20	4,431	48.57
33 Macerata ..	247,729	66	32	199,978	32	..	..	..	..	3	8	2	..	6	..	32	5,810	10.18
34 Mantua ..	160,811	35	14	28,518	14	..	..	..	..	..	..	3	..	..	..	32	5,810	10.18
35 Massa ..	160,811	35	14	28,518	14	..	..	..	..	..	..	3	..	..	..	32	5,810	10.18
36 Massa (Carrara) ..	444,253	99	10	218,718	10	1	..	..	..	2	3	3	..	..	..	14	3,601	12.22
37 Messina ..	1,054,793	397	25	447,159	25	2	1	..	..	1	2	6	..	..	..	18	1,127	5.13
38 Milan ..	260,803	45	5	107,726	5	..	..	..	..	..	..	..	..	..	..	26	390,200	36.81
39 Modena ..	936,141	68	12	597,974	12	5	..	..	..	1	2	5	..	..	..	19	1,707	6.20
40 Naples (Napoli) ..	936,141	68	12	597,974	12	5	..	..	..	1	2	5	..	..	..	19	8,813	9.41

communes :—Naples has 8, Turin 7, Rome 6 ; three communes have 4 each ; three others have 3, thirty have 2, and 964 communes have 1 each.

There were 1,011 hospitals which received both sexes, 40 others received men only, and 15 received women only ; 30 were for special diseases, 10 for particular classes of people, and 29 for some special object of medical study. With regard to the classification of diseases received for treatment, 267 of these hospitals were open to all kinds of disease, 30 to special diseases, and the other 769 were general hospitals, receiving every class of disease except contagious in 99 instances, except chronic cases in 222 instances, chronic and contagious in 156, syphilitic in 58, syphilitic and chronic in 75, venereal and contagious in 39, and venereal, chronic and contagious in 81 instances.

In the preceding synoptical tables will be found most of the information detailed above. Table A shows the distribution of the hospitals throughout the provinces of Italy, with the population of each province, the number of communes, the number of communes possessing hospitals and their population, the classification of the institutions, the annual average number of patients treated, and their proportion per 1,000 of the inhabitants of the province. Table B gives similar information for the hospitals distributed over the regions of Italy. These two tables were drawn up by Dr. Cesar Cazzani from statistics supplied to him by the Ministry of the Interior, and may be taken as correct for the year 1884.

Commenting upon the results shown by these tables, Dr. Cazzani observes that in the whole of Italy there was at that time but one hospital for phthisis, and that one was closed for repairs. Recognising the fact that pulmonary phthisis is one of the most terrible diseases of youth, and carries off nearly 50 per cent. of the adult population, and also that every year it extends its ravages and claims more victims, he urges the Government and administrative authorities, as well as the whole medical faculty, to devote serious attention to this scourge, and to found hospitals exclusively for the observation and treatment of phthisis, or at least to retain special wards for patients of that class. So great, indeed, was the disregard of phthisis at the time he wrote that in about 387 hospitals it was excluded altogether as a chronic disease.

It will be observed that contagious diseases are resolutely excluded from 384 hospitals. Since such exclusion leaves the onus of making proper provision for cases of infectious diseases upon the

not too large resources of the communes, it cannot be too severely deprecated, for it must often be absolutely impossible to isolate such cases when they occur in the homes of the very poor. In many instances, too, the hospital boards are acting in direct opposition to the original statutes of their institutions. Most of the so-called *Ospedali Maggiori* are developments of old lazarettos, and these hospitals, when they took over the endowments of the lazarettos, which were primarily intended for the reception and treatment of pilgrims suffering from leprosy or infectious disease acquired in the East, ought also to have assumed all the responsibilities of the older institutions.

There is another grave defect in the existing hospital provision of Italy; with the exception of one institution at Palermo, which receives an annual average of about 610 convalescents of both sexes, there are no convalescent homes in the country. Of the valuable work done by such institutions it is needless to make detailed mention here, and we can only deplore their absence in Italy, and urge that they be supplied as soon as possible.

With regard to the proportion of sick received into the hospitals to the total population of each province and region, the tables appended give the following results in the several *compartimenti*:— In Rome the proportion is 62·56 per thousand; in Lombardy, 25·42; in Tuscany, 21·87; in Sicily, 16·88; in Piedmont, 16·84; in Venetia, 15·43; in Æmilia, 14·78; in Liguria, 14·02; in Umbria, 13·36; in the Marches, 10·48; in Sardinia, 9·32; in Apulia, 8·62; in Calabria, 5·77; in the Abruzzi, 1·87; and in the Basilicata 0·93.

Comparing these proportions with those of hospitals to communes, we find that the province of Rome stands first with regard to admissions and second with regard to the number of hospitals; Lombardy is second relatively to admissions and twelfth relatively to hospitals; Tuscany is third for admissions and sixth for institutions; Sicily is fourth for admissions and fourth for hospitals; Piedmont is fifth for admissions and tenth for hospitals; Venetia is sixth for admissions and eleventh for hospitals; Æmilia is seventh and fifth respectively; Liguria is eighth for both; Umbria is ninth and seventh for admissions and hospitals respectively; the Marches come tenth and first; Sardinia is eleventh and sixteenth; Apulia twelfth and third; Calabria thirteenth and fifteenth; the Campania fourteenth and ninth; the Abruzzi rank fifteenth and thirteenth; and the Basilicata is sixteenth and last with regard to admissions, and fourteenth with regard to the number of hospitals.

THE COMMUNAL MEDICAL SERVICE.

We have elsewhere referred to the early history of the communal medical service in Italy, and to the appointment by Antoninus Pius of "*archiatri populares*," who were granted certain privileges and exemptions on condition of performing certain specified services to the State and to the commune, among which were included gratuitous medical treatment of the poor and supervision of the private practitioners in the neighbourhood. We need not now, therefore, go further back than the constitution of the new kingdom of Italy and the accompanying centralisation of administration. Article 116 of the communal and provincial law, passed in 1865, included among the compulsory expenses of the communes everything pertaining to the sanitary service, ordaining that, where particular institutions did not make proper provision for this purpose, the communes should pay salaries to the physicians, surgeons, and midwives.

Of the 8,250 communes which make up the kingdom, 7,560 provide in their budgets for the sanitary service; in 109 it is exclusively provided for by public charitable institutions; and 560 either ignore the law, or at most only pay an official to perform vaccination. To this last class probably belong 21 other communes from whom no information is forthcoming.

The communal sanitary service is performed by 7,243 persons with the double qualification of physician and surgeon, by 1,088 who are physicians only, and by 589 who are surgeons only. In 4,151 communes provision is made for the gratuitous medical treatment of the entire population; while in 3,409 such treatment is provided only for the poor, the physician being unrestricted as to private practice among the classes who are able to pay for attendance. The charitable institutions, also, only give free medical aid to the poor. The former system, although appearing in almost all *arrondissements*, is more common in Lombardy, Umbria, the Marches, Tuscany, and Rome; the latter is more usual in Piedmont, *Æmilia*, and Sicily. Piedmont and Sardinia are the two regions presenting the largest number of communes where there is no medical service. In some *arrondissements*, such as Tortona, Biella, Domodossola, Pallanza, Varales, and Oristano, about half the communes are quite unprovided for with respect to the sanitary service.

The communal doctors, besides attending the sick, have to perform vaccination and assist the municipal commissions of health in the capacity of secretaries. These commissions are consulting bodies, advising the syndics respecting any business upon which the latter may think fit to consult them. Their legal functions are to take timely steps to remove from the communal territory everything which may prove prejudicial to the public health ; to superintend the carrying out of all local regulations of urban and rural police adopted by the municipality ; to exercise especial supervision over all the communal hospitals, schools, insane wards, charitable institutions, orphanages, and so forth, in order that nothing from a hygienic point of view may be lacking to the healthiness of these establishments ; to superintend all interments in the communal cemeteries, and provide for the scrupulous performance of all hygienic requirements in such cases ; to acquaint the syndics of all cases of small-pox observed in the communes, of all cases of specific disease partaking of the endemic character, and of whatever else may prove prejudicial to the public health ; to supply the syndics with a report of all vaccinations performed during the year in the communes, after having provided for their performance on the largest possible scale ; and to furnish the health councils of the arrondissements with all particulars necessary for drawing up the hygienic and sanitary statistics. The municipal commissions of health are composed of eight members in communes of which the population is 10,000 inhabitants, and of four members where the population is less than this number ; but it will be readily understood from the very nature of the case that it is upon the physician that the duty especially falls of attending to the scrupulous performance of all the duties just referred to.

When we consider the varied and important functions of the communal physicians, we are bound to confess that the remuneration they receive for their labours is very meagre. In most of the provinces of Southern Italy, including Sicily, the profits derived by the physicians from the practice of their profession are wholly inadequate to the requirements of the most modest life. Even where the communal physician is compelled to attend the entire sick population his salary rarely exceeds 40/. In these regions it is generally the small landowners who adopt a medical career, rather from a desire to obtain a higher degree of education than to make money by it. In Northern and Central Italy their condition is not prosperous indeed, but it is considerably better than in the

South. Whereas the Government makes a point of maintaining the administrative autonomy of the communes, it entirely shirks affording the protection which it ought to extend to the communal physicians.

The power of nominating and licensing these physicians is reserved entirely to the municipal juntas, presided over by syndics, and this has often produced great abuse of authority. In 1874 the National Association of Communal Doctors was formed, with the double object of guarding their material interests and protecting their dignity. The governing council sits at Rome, and keeps in touch with all the provinces by means of committees; the Association publishes a monthly report, and holds a general congress every alternate year, not only for the discussion of scientific questions, but also to combine the communal doctors by links sufficiently strong to enable them to withstand the injustice of certain communal authorities, and induce the Government to regard them as their officials, or at least to provide that they should be nominated and licensed after preliminary recommendation from competent authority—that is to say, from the provincial council of health.

Among other schemes advocated by this National Association is one that the communes should grant pensions to doctors who, from sickness or old age, are incapacitated for further work. As a practical step towards this object a pension fund for doctors has been started, to which several communes have subscribed. An annual payment of 35 francs for thirty years insures an annual pension of 1,000 francs, commencing at seventy years of age—that is to say, thirty payments of 1*l.* 8*s.* will insure a pension of 40*l.* a year. Probably this annual rate has already been raised, as it was considered too low to meet all the requirements of the scheme. The Association also intends to found a school for the maintenance and proper education of orphans of poor communal doctors, and it has secured a considerable sum for this purpose, to which the Government has promised to subscribe.

We append a table showing the condition of the communal medical service in Italy, drawn up from returns supplied by the communal syndics in 1882 :—

Table showing the condition of the Communal Medical Service in Italy.

No.	Regions.	Number of Communes.	Population.	In the Communal Service.			Number of Communes which provide for the Sanitary Service.			Sums expended for the Sanitary Service.		Communes which have no Sanitary Service.
				Physicians.	Surgeons.	Physicians and Surgeons.	For the entire Population.	For the Poor.	At the charge of Charitable Institutions.	For the entire Population.	For the Poor.	
1	Piedmont ..	1,483	3,054,070	41	22	810	287	826	75	467,935	736,913	290
2	Liguria ..	308	881,043	13	8	200	140	105	14	163,627	95,687	40
3	Lombardy ..	1,917	3,622,086	9	12	1,141	1,465	413	3	1,881,625	774,532	10
4	Venetia ..	794	2,790,265	32	26	739	307	476	2	585,694	1,180,791	8
5	Emilia ..	323	2,186,995	47	36	621	89	232	1	511,022	802,837	1
6	Umbria ..	159	570,519	63	23	199	131	1	..	621,459	15,800	..
7	The Marches ..	249	941,344	172	83	249	247	..	..	1,102,647	..	..
8	Tuscany ..	227	2,209,494	36	14	677	108	73	..	998,022	398,356	3
9	Rome ..	227	845,443	106	67	108	224	2	..	772,191	40,100	..
10	The Abruzzi ..	456	1,325,504	59	19	422	231	195	2	365,070	123,147	25
11	Campania ..	612	2,861,590	202	106	635	269	310	4	351,414	274,278	27
12	Apulia ..	237	1,506,289	38	29	361	109	125	1	245,979	188,469	1
13	Basilicata ..	124	528,514	34	19	112	51	68	..	74,498	50,506	5
14	Calabria ..	410	1,254,059	49	23	398	186	106	1	234,739	129,932	24
15	Sicily ..	359	2,769,178	175	94	271	55	279	5	133,223	330,762	17
16	Sardinia ..	365	663,401	12	8	210	142	108	1	261,000	60,105	109
The whole kingdom *		8,250	28,010,695	1,088	589	7,243	4,151	3,409	109	8,861,045	5,211,125	560

* Less returns from 21 communes.

MANAGEMENT OF ITALIAN HOSPITALS.

The supreme administration and direction of all hospitals in Italy is vested in councils of administration, which have the control of all such institutions in the provinces. In all cases the composition and functions of these councils are very similar, although their numbers vary in different places. In Florence the council consists of seven members, five elected by the communal and two by the provincial council; the election is by ballot and by majority of votes; the councillors appoint their own president, who holds office for three years, while of the others one retires each year, retiring members being eligible for re-election; in every instance the appointment is honorary. In Genoa the council consists of a president, vice-president, and ten members, eight of these twelve gentlemen being elected by the communal, and four by the provincial council; they hold office for four years; every two years four of the communal and two of the provincial representatives retire in order of seniority, all being eligible for re-election; if the entire council is reconstituted, their retirement is decided by drawing of lots in the two electing bodies. In Milan there is a president with eight other councillors. In Naples there are four governors and a superintendent; two of the governors retire every three years, but are eligible for re-election; the council holds office for six years, and its work is all performed without payment. In Torino the council is composed of a president, elected by the communal council, and of eight other gentlemen, of whom four are elected by the communal council, and four, with the title of *Canonici*, are appointed by the metropolitan chapter; the president holds office for three years, the rest for two years; in the case of the president his election must be made by at least two-thirds of the persons voting, and these must be not less than half of the entire communal council; in the case of the other councillors their election is effected by majority of the voters present. In Venice there is a president, holding office for four years, and also four councillors, one of whom retires every year. No person in any way connected with the hospitals, or related to the medical officers, is qualified to sit upon these councils; nor may any person vote upon any subject in the issue of which he is directly interested.

The functions of the administrative councils are numerous. They appoint, revoke, and dismiss the directors and all other

salaried administrative and sanitary officials of the *opere pie*, consulting the directors whenever they deem it proper to do so; they submit for the approval of the authorities any modifications which may be made in the internal administrative and sanitary regulations; they review and sanction the estimates, and examine the budgets, superintend all matters affecting the patrimonial property of the institutions, approve and settle the terms of all contracts, and have a general deliberative power over everything concerning the hospitals. The councils hold regular meetings, varying in frequency from once a week to once a month, but extraordinary meetings may always be convened at the request of three or more members, or at the sole instance of the president. All questions are decided by majority of vote, the president having a double and decisive vote in cases where opinion is equally divided. As head of the council the president is the supreme representative of the institution in official matters. The minutes of the sessions of the council must be signed by the president or his delegate, and countersigned by the secretary.

This council of administration is, in short, supreme, and can intervene largely in the actual operations of the hospitals. For the effective working of the institutions there is an administrative staff, consisting of a director, accountant, treasurer, and steward; and a medical staff, composed of a varying number of senior physicians and surgeons, assistant surgical and medical officers, supplementary assistant surgical and medical officers, and students. In addition there is the ordinary nursing and domestic staff. The appointment of all officials rests with the council of administration. As a broad rule, the appointment of the medical officers is for a term of years which may be prolonged at the discretion of the council; they must be duly qualified, and are prohibited from practising outside their hospitals.

The following account of the Hygienic and Sanitary Board in Florence gives a fair idea of the Italian system of hospital management from the scientific point of view. The Hygienic and Sanitary Board is the central administrative authority in regard to the combined hospitals. The Board is located in the hospital of S. Maria Nuova, as a general centre of the hygienic and sanitary services of all the institutions comprised in the *Pio Istituto di Beneficenza*. Under the immediate authority of the Council of Administration, it provides exclusively for the objects intended to be fulfilled by these institutions. All funds, therefore, which are devoted to hos-

pital charity and to all other objects connected with the admission, care, and treatment of patients, and which, briefly, are technically part of the hygienic and sanitary system, are entrusted to this Board. It controls all the services and the entire sanitary and administrative staff, including servants and nurses.

Attached to this Board is a physician-surgeon, with the title of superintendent, who is a delegate from, and representative of, the Council of Administration. He is the responsible head of the Board, the immediate superior of all the salaried administrative and sanitary subordinates, including nurses and servants, and the direct executor of the decisions of the Council on all matters relating to his department. In the discharge of his many and varied functions of a hygienic and sanitary nature, the superintendent has the assistance of four medical coadjutors, whose position as salaried officials deters them from holding any other appointment interfering with the strict observance of their hospital duties. These assistants perform their several duties according to the specified terms of the hospital regulations, and they may not be released from those duties nor depute them to others without the express permission of the Council of Administration, or of the superintendent in cases of emergency. In his administrative duties the superintendent is assisted by a steward, who is a mere paid official, by a clerk, registrars, secretaries, and so forth, whose work is specified by particular regulations.

Of the four medical assistants two are of the first class, one of the second and one of the third. One of the first class assistants resides in the offices of the Board with the title of vice-president, and the other resides in the hospital of S. Boniface in the capacity of sanitary director of that institution. The second class assistant lives in the hospital of S. Maria Nuova as sanitary director, while the third class assistant lives in the offices of the Board, and is placed entirely at the disposal of the superintendent.

By the terms of the organic law of the combined institutions of Florence, the Sanitary Board is bound to receive, take care of, and restore, the movable material necessary for the service of the wards, and to keep and render an exact account of any change and substitution made therein. The provisioning of the larder, kitchen, dispensary, and medical stores with everything in daily or frequent use, falls under their immediate jurisdiction, and they also have to attend to everything in the wardrobe, beds, furniture, linen, and whatever is required in the wards, but of which the wear and tear is gradual. Lastly, whatsoever is part of the property of the Opere

Pie comes scientifically within their scope ; as, for instance, the medical library, surgical instrument chest, various machines and apparatus, cabinets, scientific collections, and so forth.

The Board provides for and watches over the admission and provisional acceptance of all who apply at the hospitals, the care and treatment of patients, the discharge of those who are cured, and the necessary arrangements to be made with regard to the dead. It takes charge of articles belonging to the inmates, and provides for their being returned, after the regulation precautions have been taken, to the lawful owners, except when they may have devolved by right to the charity. It distributes and regulates all the hygienic and sanitary services, and submits for the approval of the Council whatever measures it may consider adapted to further the objects of the hospitals.

The Board appoints the staff of the hospitals in general, including the service of the maternity department, the electropathic cabinet, the dispensary, library, religious service for patients, and the administrative and economic sections. The time-table for the service of every section of the Sanitary Board, as drawn up by the Council of Administration, has to be kept exposed in a public place together with a list of the names of the officials upon whom the responsibility of the service devolves. The superintendent is responsible for the exact observance of the time-table, and for its being thus exposed as the Council requires.

The offices of the Sanitary Board are open during hours mentioned in the time-table of the Council of Administration ; during these hours the superintendent or one of his assistants must be constantly present in the offices, their regular division of this duty being agreed upon between themselves but publicly intimated on the notice board. The steward or his paid substitute must also be present alternately in the offices, and similarly the assistants detailed for the office of directors in the hospitals of S. Maria Nuova and S. Boniface must be available in their respective quarters in accordance with the rules and time-table appointed by the Council, both these documents being open for public inspection. During the night, the superintendent must be available in the quarters assigned to him, and may never pass the night away from his hospital without the duly authorised permission of the Council ; in this latter case the first class medical assistant who replaces and assists him in his superintendency is obliged to pass the night in his special room. In the event of the urgent and temporary absence of the superintendent

at night, notice must be given to the other third class assistant who resides and sleeps in the hospital.

The first class assistant cannot and may not ever change the duties of, or act as substitute for, the other assistants in their various functions of presence, direction, vigilance and care, being bound, just as is the superintendent, to supervise their execution. In special cases, however, he may be entrusted with the performance of these duties when the Council thinks proper to authorise him to do so.

The superintendent's assistants who have the direction of the two hospitals, or help him in his department, may demand and obtain from the Council, on the recommendation of the superintendent and according to seniority, leave of absence of not more than a month in all, at one or more times during the year, subject to the requirements of the service and to the circumstances of the public health.

The superintendent and the first class assistant who is his colleague and substitute are expressly prohibited from applying for and obtaining leave of absence at the same time; and similarly, contemporary leave of absence is forbidden to the two directors of the hospitals, who may always obtain it successively according to seniority of rank.

All these officials are obliged to conform to the discipline, rules of service, and special or temporary regulations which may be enacted by the Council of Administration or by the superintendent, according to the circumstances and various requirements of the several services, within the limits of their respective jurisdictions.

Duties of the Superintendent.

The superintendent, as the responsible head of the entire sanitary and assistant staff and as the superior officer of the respective officials and servants, has the supreme direction and immediate supervision of all the wards in the various hospitals and combined institutions, of the dispensary, wardrobe, larder, kitchen, medical stores, surgical instrument stores, electropathic cabinet, baths for the patients, and free consultations. He must hold a diploma entitling him to free practice in medicine and surgery, must have wide experience in science and arts, and be specially skilled in hygienic and hospital matters. Being compelled to reside constantly in the hospital of S. Maria Nuova, he is provided with unfurnished quarters adapted to the nature and rank of his position. His duties as superintendent are incompatible with his undertaking any other

paid public work, or engaging in professional practice except such as is merely consultative. He is subject directly to the Council of Administration, referring to and discussing with that body everything of a hygienic and sanitary nature which may concern the inmates of the institutions. He assists at the sessions of the Council whenever his presence is invited, and submits to them whatever measures he may think necessary for the promotion of hygiene and efficient sanitary administration.

The superintendent sees that the expenditure upon the objects of the hospitals conforms strictly with the estimates, and to this view he furnishes the patrimonial board with all the notices and information available, when required to do so. With the co-operation of the first class assistant, he makes frequent and unexpected visits to the different sections of the hospitals and their annexes, such as the larder, kitchen, and wardrobe, at times when certain services are being performed there, as, for instance, the medical visits, distribution of drugs and diets, changing of guard, changing of linen, and cleaning of the wards and annexes.

He communicates the Council's orders, and also his own regulations, to his subordinates and to all whom they concern, and in the event of any breach of discipline, and particularly in the event of punishment being ordered or enforced, it is his duty to collect all the necessary information with the utmost diligence and despatch, to supply the incriminated persons with the necessary information, and to acquaint the Council with his own action in the matter. He conducts the indispensable correspondence with the State and municipal authorities, with the King's attorney, and with the public officials in ordinary cases referring to hygienic and sanitary matters or in matters of obvious urgency. In all other cases it is to be conducted by the Council or its president.

In the forenoon of every day he despatches to the director of the administrative and patrimonial section for the use of the accountant a summary of the movement of the inmates and of the existing number of patients. It is also his duty to supply the president of the Council with a daily report, mentioning everything worthy of note which has occurred in the various sections of the hospitals and their annexes during the previous twenty-four hours, adding his own comments if he thinks fit and detailing the measures taken. It is his main care to see that his subordinates of every description without distinction of rank perform their several duties satisfactorily, and to be especially careful that those services which

require the constant presence of the officials to whom they are entrusted are not neglected. He has to see that all the business of the office is completed before three o'clock in the afternoon of each day, more especially that which relates to the ordinary correspondence, orders for diets, registration, and filing of documents which have to be collected and preserved ; and he must also make a careful and accurate examination of the signing of all papers, notes, registers, schedules, and accounts, of everything in short to which his signature has to be attached.

At six o'clock in the evening he must again attend at the office to take cognisance of all business, documents, and letters which may have come in from the superior authorities or from anyone who may have reason to communicate with him as to the immediate measures to be taken to provide for contingencies, and he must proceed with the requisite despatch to visit the patients who have been provisionally admitted during the twelve preceding hours, with a view to definitely sanctioning their admission, or suspending or cancelling it according to circumstances. At this visit the superintendent requires the presence of the assistant to whom is entrusted the immediate direction and supervision of the wards in the hospital of S. Maria Nuova, the physicians and surgeons on guard, the registrar of patients, the chief of the guard, both male and female, the servants detailed for the immediate service of the consignment wards in each section, and the male and female searchers for each section. In this part of his duties the superintendent has to ascertain before everything else whether the patients admitted are all properly accommodated and have received careful attention. He examines the regularity of the documents required by the regulations for the admission of patients either at the expense of their respective communes or at their own private charge. Such admissions granted provisionally by the medical officers on guard, and approved by the superintendent, are subject only to the sanction of the Council of Administration. When the admission has been definitely sanctioned it rests with the superintendent to see that the necessary arrangements are made and carried out for the subsequent disposition and treatment of the patient, the assistance of the patrimonial board being sought in the event of any administrative difficulties arising.

He inquires into the importance and justice of complaints made by the patients, keeps a strict eye upon their unnecessary or prolonged stay in hospital, upon the return home of those who are

cured, and upon the most convenient way for their being so returned. He supervises the accurate observance of the regulations concerning the removal of the dead from the wards to the mortuary observation room and from thence to the chapel of the anatomical halls, being careful that no corpses in a state of decomposition are introduced into the observation room from outside, and that those who have died from contagious and infectious diseases are deposited in an isolated place and promptly placed in the chapel. It is his duty to obtain the permits of burial from the competent authorities within the specified time, and he has to be particularly careful that such dead bodies as remain at the disposal of the political or judicial authorities in the dépôts of the hospitals are not a cause of danger to the public health.

In the event of contagious or endemic diseases appearing in the hospitals it is his duty, after taking all opportune measures required by the first necessity, to make an immediate report to the Council of Administration, in order that that body may provide as the case requires for isolation, disinfection, and whatever else may be necessary according to law.

The entire medical and surgical staff of all the hospitals in all departments is under his direct supervision. He authorises their actions, especially their dietetic and therapeutic prescriptions, so that no abuses may creep in, no unduly expensive measures may be required, and no patent medicines may be introduced. The director and staff of the dispensary are directly subordinate to him in everything connected with the requirements of the hospital service, and the director of the dispensary has to furnish him with a daily report of the regular conduct of his department. Within the limits of his power the superintendent may authorise the director of the dispensary to effect any imperative changes that he may deem it convenient to make in that department.

The superintendent is immediately responsible for the careful maintenance of the surgical chest, the electropathic cabinet, the apparatus and instruments required in the professional work, and the various articles necessary in making diagnoses.

The superintendent presides over the sanitary commission appointed by the statutes of the hospital to determine the physical suitability required of applicants for admission to the institutions, and puts forward for promotion or reward such of the subordinate staff as deserve it. By virtue of the authority conferred upon him by the statutes, he can inflict the following penalties without the previous authorisation of the Council : verbal reprimand and written

warning, suspension from office and from pay, or from pay only for a period not exceeding five days, subject to giving the Council information in a special report and after having heard the defence of the individuals inculpated.

He appends his signature to the demand forms for whatever is to be reimbursed by the schools of medicine and surgery, verifying the previous sanction of the president of the school. Without in any way encroaching upon the functions of the administrative and patrimonial direction and of its subordinates, he is bound to exercise his supervision and authority over all operations and all the staff of the administrative and economic section attached to the hygienic and sanitary direction.

The estimates, in so far as they concern the Sanitary Board, are communicated to him after being passed by the Council, and he takes notice of the orders made concerning the various items and titles of expenditure relating to his control, gives the necessary directions to his subordinates, and pays most scrupulous attention to the exact fulfilment of the orders, seeing that the sums are not transferred from any one title of expenditure to another, without the proper authorisation of the Council.

With the aid of his own first class assistant he sees that the staff attached to his office keep with regularity the prescribed registers, &c., and that the certificates and documents of admission, the nosological charts, reports of surgical operations, &c., are also duly prepared.

Other duties of the superintendent, which he may discharge through his assistant, are to preside over and direct consultations and important subject operations; to call meetings of the medical staff when required by the Council, and to preside over them; and to assist in the compilation or revision of the pharmacopœia and superintend its scrupulous observance. At the end of each year he transmits to the Council of Administration a general report upon the sanitary service, conduct of the officials and entire subordinate salaried staff, and upon the manner in which they discharge their respective duties. He also supplies the Council annually with a report upon the economic transactions of the Sanitary Board to serve as an illustration for the budget of the institution.

Duties of First Class Assistant.

The first class assistant resident at S. Maria Nuova, in addition to supplying the superintendent's place during his absence or

in other emergencies, assists him in his many varied functions, but is also entrusted with the following duties particularly :—

(a) The compilation of the nosological statistics and of the surgical operations, subject to the punctual receipt of the nosological charts compiled by the medical officers attending the respective patients, and of the notes of operations made by the senior and assistant surgeons attached respectively to the wards in which they have been performed.

(b) The superintendence of the regular keeping of the documents which must serve as a basis for the compilation of these statistics by those officials whose province it is to collect and preserve them.

(c) The precise and careful collection of the documents required by the superintendent in giving notice of deaths and births, seeing that at the proper time there are remitted to the superintendent's office, properly authenticated, the diagnoses of the diseases from which death has resulted, signed by the medical officer attending the case, and the formal declaration of births occurring in the hospitals.

(d) The admission of the poor to the establishment of free baths.

(e) He assists the superintendent in his duties of officer in charge of individuals placed in the observation ward, and in his examination of candidates for hospital appointments, as well as in those which he may have to make in order to verify cases of illness among the subordinate staff.

(f) He superintends the strict conformity to the conditions attached to leave of absence for the subordinate staff, reporting to the superintendent those who abuse their privilege or attempt to evade the regulations.

(g) He also superintends the exact observance of the hours of duty by the staff attached to the pharmaceutical and medical departments.

(h) He assists the superintendent in his frequent inspections of the various places in which the patients are distributed, and of the larder, kitchen, and wardrobe.

(i) He assists the superintendent in the admission of patients, and in their distribution in the various wards, seeing that the orders given are punctually obeyed.

(k) It is his duty to prepare and dispose of the necessary correspondence relating to requests which may be made about the

inmates by their families or the various authorities who send them in.

(*l*) He supervises the prompt and careful transmission or transference of patients from one hospital to another.

(*m*) He superintends the maintenance of discipline and observance of the regulations issued by the Council of Administration or by the superintendent, assisting the latter in the proper keeping of the regulation book.

(*n*) In the absence of the superintendent, or when deputed by him, he assists at the consultations or surgical operations which may be performed ; in such cases it is his duty to see that invitations are sent to those who ought to take part in the consultations or operations.

(*o*) He is present at the meetings of the Council when invited to do so during the absence of the superintendent.

He is entitled to a furnished bed-room and sitting-room, and to lights and fuel. In the absence of the superintendent he sleeps in the hospital so as to be ready for any emergency which may occur.

Duties of Second Class Assistant.

The second class medical assistant is entrusted with the immediate direction and superintendence of the wards and their annexes in the hospital of S. Maria Nuova, and with the execution of the regulations, under the immediate jurisdiction of the superintendent. He must be in the hospital assigned to him during the hours determined in the regulation time-table drawn up by the Council on the superintendent's representation. Subject to his immediate attention and responsibility are the discipline and proper conduct of the service of assistance ; the first aid to be given to new inmates ; the precautions to be taken with respect to the dead during the time they are resting in the observation ward ; the exact discharge of their duties by the medical officers and assistants of the guard and on the roster, and by the assistants when on duty in the hospitals ; the observance of the time-table by these officials and their subordinates ; the scrupulous exactness in the distribution of diets, and consignment of drugs ; the performance of their duties by the domestic staff with regularity and humanity ; the conduct of the public in the sick wards ; the discipline of the porters at the entrance to the wards, the superintendence of the mortuary chambers and the decent removal of the dead thereto.

It is within his province to grant permission to visit the sick during exceptional hours. He keeps a careful watch against the unnecessarily prolonged residence of patients in hospital and against their too early discharge. Whenever a patient desires to leave voluntarily, or his family, relations or guardians desire to remove him without the previous discharge of his medical attendant, he has to prepare a written and signed declaration to the effect that his removal is voluntary. Whenever a medical attendant discharges a patient and orders his removal in a litter, ambulance, carriage, or so forth, it is his duty to ascertain beforehand that legitimate reasons exist for such a concession, and to provide for the patient being accompanied by an attendant to the house from whence he came. When a patient is admitted he must see that he is provided with the necessary wardrobe, so that if he is not, the necessary steps may be taken to supply his needs at the time of his discharge from the hospital.

He superintends the proper working of the service in the wards and of the guard, and the careful compilation of the nosological charts upon every admission. He sees that the aid given to the patients while they remain in the *dépôt* is not neglected; that the proper officials are present with him at all admissions made by the superintendent during the night; and that no substitutions or changes are effected in the service without due authorisation, promptly sending in a written report to the superintendent of any abuse or inconvenience which may arise. He also has to report to the superintendent any absence of any of the officials, so that the necessary arrangements may be made.

Every day he sends to the superintendent at an early hour a report on the working of the entire hospital service during the preceding twenty-four hours, together with a statement of the movement of population among the patients according to their classification, and this report must contain his proposals for concessions, punishments, and promotions which may conduce to the better conduct of the hygienic and sanitary service. In addition to all these ordinary reports he must report immediately to the superintendent upon everything required by special emergencies. Once a week he submits a statement of the sanitary and first-aid staff from which are made the individual appointments to each service. He must be present during the hours in which medicines are given out, or applications for external use are made up, diets distributed, and visits paid by the medical attendants, or when any important

business is being conducted, ordinary, extraordinary, or unforeseen. He supervises religious service in the wards, conforming exactly to the rules of the statute upon this point.

The staff for first-aid is placed under his immediate authority, and he attends to the punctual discharge of the regulations relating thereto. He keeps the regulation book in which are entered all the rules and special ordinances which may be issued by the Council or by the superintendent's office. He also keeps another book in which are mentioned with the necessary remarks those patients on whom operations are to be performed. The cleaning, ventilation, and warming of the wards, the patients' walks, change of linen, beds, and furniture, washing of the patients, disinfection of places from which noxious emanations may arise, the prohibition against smoking in the wards, and the deportment of the patients and the domestic staff, are all under his superintendence. He looks after the servants of both sexes attached to the institution. He has to take part in the commissions to which he may be appointed by the Council or by the superintendent ; and finally, he is obliged to live in the quarters assigned to him by the administration, always passing the night there except during his term of regular leave or other absence sanctioned by the superior authorities, in which case the superintendent makes provision after consulting with the Council of Administration.

Duties of Third Class Assistant.

The third class assistant is appointed to assist and, when necessary, to replace the two sanitary directors of the hospitals of S. Maria Nuova and S. Boniface, repairing to all the hospitals belonging to the Opere Pie to fulfil the functions which may be vested in him by the superintendent. He assists in the compilation of the nosological statistics and in the admissions of the poor to the free baths. He must always be present in the superintendent's office during the hours determined by the official timetable, and must always pass his nights in the two furnished rooms to which he is entitled, so as to be able to lend assistance in all requirements of the hospital service at any hour of the night.

General Administration of Italian Hospitals.

With various modifications in various localities the foregoing rules for the principal officials in the Florentine hospitals apply to all similar institutions in Italy ; and it might be supposed that in a

country where such careful attention had been paid to the regulations detailing the functions of the officials, the conduct of the hospital establishments would have been at least satisfactory, if not indeed excellent. Yet this is not the case. In many respects Italy is far behind other continental countries. The reasons for this inferiority are not far to seek. In the first place modern charitable work in Italy is fettered and hampered by its past history, and its present methods of distribution and administration are still antiquated. Before a wholesome national system can be built up much has to be destroyed; not only must the power be transferred from the old hierarchical to the new secular and municipal authorities, but the popular prejudice and superstition, which have been a shelter for gross idleness and professional pauperism, must be eradicated. In the second place the present state of charitable work in Italy is one of transition, and faultiness of administration is a necessary result of this condition. When in the course of time the process of settling down under the new *régime* is accomplished, practical philanthropy will become as much modified in Italy as it has in France since the revolution of 1789. However much the clerical party may deplore the laicisation which is occurring in Italy, we cannot doubt but that the ultimate results will be as salutary as they have been in France. It must be understood that we are not now weighing the relative merits of a national or State system of hospitals as against those of the voluntary system. The State system is being naturally evolved in Italy and is therefore in all probability the one best adapted to that particular country. In the meantime, however good the system may look on paper, the fact remains that in practice it is very bad. The following report of a special correspondent delegated by an Italian newspaper to inspect the San Giacomo hospital in Rome, and for which we are indebted to the *Lancet*, bears ample testimony to this statement. The administration of the institution in question is at present entrusted to a Royal Commissioner, the Commendatore Silvestrelli, and this is the condition in which the San Giacomo Hospital was found.

"In the courtyard of the laundry were stretched on clothes lines some dozens of sheets, so coarse in material and so black that one could not say whether they had been washed or not. These sheets, with which the hospital was liberally enough provided, might serve for making corn-sacks, but not for their special destination—the beds of the patients." From the laundry the linen had to be conveyed across a number of places not conducive to their fresh-

ness or freedom from microbes. But let us follow the correspondent: "I saw the so-called *camerette* (closets) in which the cancer patients were confined. They are low-roofed, without air, without light, *indecentissimi*. The patients (females) buried alive in them will soon be transported to places less *malsani* (unwholesome)! Still worse than the *camerette* is the so-called '*sala di pronto soccorso*' (hall of immediate relief). It is a place narrow, dim, unfurnished, with an old brick pavement in the worst condition, a place good enough at best for storing fire-wood, but not to receive sufferers from injuries requiring the promptest treatment. In two diminutive apartments of the worst description is the dispensary—to the left as you enter from the Corso—also dim, without the necessary furniture, with two dirty old tables and two timber arm-chairs, historical or mediæval of aspect. This dispensary had none to manage it but a young student of medicine, who had to get what help he could from the porter, who was often drunk (*spesso ubbriaco*). The San Giacomo hospital is deficient in articles of primary necessity, such as mattresses, and wash-hand basins for the surgeons. The other day it had to buy four bales of wool to prepare some mattresses for the reserve-wards. The pharmacy is also defective. Suffice it to say that to provide *aqua distillata* there is but one *distillatore*, a century old, and absolutely insufficient for the purpose. The scales—those of the smaller and finer description—are all covered with rust. There is no adequate assortment of phials, and the pots for unguents are of the most ordinary earthenware." Worse, however, remains to be told. "What roused my indignation most," proceeds the correspondent, "were the holes (*buchi*) where some chronic female patients were 'accommodated.' One of these has been an inmate of the San Giacomo since 1848, another since 1855. These unfortunate creatures are kept under a staircase. Considering that they refused to die and that they were incurable, they were stowed away like superannuated furniture. It is needless to say that the Commendatore Silvestrelli will have them removed to a place where at least they can breathe a little better." The correspondent declines to speak of the water-closets, because he would have to descend to details too disgusting (*particolari troppo nauseanti*). "Suffice it to say that for the very long Genga ward there is but one (and that quite other than inodorous), so that the patients are compelled to make real journeys." All this, however, will be remedied as soon as practicable by the Commendatore Silvestrelli. The correspon-

dent found the bath-rooms and the kitchen less open to criticism, but as to the dietary he has little to approve. "Che cosa date stamane ai malati?" (What are you giving the patients this morning?) he asked the cook. "Fagiuoli, ma a pranzo avranno il fritto" (Beans, but at dinner they will have a fry), was the answer. The beans are white haricots. The fry is a mess of cauliflower, cocks' combs, brains, and such like, familiar in the humble eating-houses of Italy—the whole washed down with the poor red wine of the country.

The picture here drawn of the San Giacomo hospital is indeed a deplorable one, not to be explained, much less excused, by the plea of its resources being exhausted by the pressure put on them by the immense influx of labour from the provinces. Other hospitals, like that of the Consolazione, are better managed, but even in it there is much that would astonish the visitor from London, Edinburgh, or Dublin. It should be borne in mind that the above description is from the pen of a special correspondent of an Italian newspaper, and that the hospital described is situated in Rome. Further comment is needless, and although we are not condemning all the Italian hospitals on the strength of this case, we confidently adduce the description in support of our assertion that, however good the system may look on paper, the fact remains that in practice it is very bad.

BRIEF ACCOUNT OF SOME OF THE PRINCIPAL ITALIAN INSTITUTIONS.

In addition to the general historical survey given elsewhere, we here append an account of some of the principal hospitals of Italy, briefly summarising their history and detailing their scope. For want of a better arrangement we have described them in the alphabetical order of the towns to which they belong, and may remark parenthetically that it is mainly from the eight under-mentioned places that we have received anything approaching satisfactory information with regard to the hospitals in Italy.

(i.) *Florence.*

The charitable hospital institution of Santa Maria Nuova was founded on the 23rd of June, 1288, by Folco di Ricovero Portinari; it was enriched during succeeding generations by the liberality of all classes of the community, by the generosity and conspicuous

favour of the Florentine Republic, and by the especial munificence of the Governors Mediceo and Loreneze ; and was finally enlarged by the combination of the various hospitals of the city, the whole now bearing the title of “ Reale Arcispedale di Santa Maria Nuova e Stabilimenti riuniti.”

The institution comprises :—

(*a*) L'Arcispedale di Santa Maria Nuova, for the care of medical and surgical diseases.

(*β*) L'Orbatello, for syphilitic and cutaneous diseases.

(*γ*) A lying-in hospital for women in labour (whether wives or prostitutes) and for children under nine years of age.

(*δ*) The Bonifazio Hospital for chronic and ophthalmic cases. Attached to this last-named institution is an Invalid Home for poor and aged persons of both sexes.

The institution contains a school of medicine, surgery and pharmacy, which is a section of the University and connected with the Royal Institution for Higher Education. It is an autonomous corporation entirely distinct from the hospital, and is administered in accordance with the laws relating to public instruction.

As to the institution itself we have received no detailed information, and can only add that it is now undergoing great alterations.

(ii.) *Genoa.*

(*a*) L'Ospedale di Pammatone is intended for the reception of patients of both sexes who are suffering from acute diseases, except such as are contagious or syphilitic, the administration making other provision for these according to the means at its disposal. It comprises a lying-in hospital and a foundling home for children under twelve years of age. This institution, of which Sebastian Ricci is director, was founded between the years 1420 and 1423 by Bartolomeo Bosco. In 1471 Pope Sextus IV., in a Bull dated the 28th of November of that year, connected the other hospitals of the city with it, and Bosco's small foundation became the grand hospital of Our Lady of Pity. In 1656 Giacomo Saluzzo added the convalescent branch. In 1757 it was decided to enlarge it, and Andrea Orolino built the new fabric between 1758 and 1780. In 1800 the old convent of Benedictine Sisters was added to it and converted into the maternity hospital. The institution is composed of a basement and two floors, the lower being occupied by the male, and the upper by the female patients. The cost of the buildings and additions is not known, but the furniture and fittings are appraised at

£20,000. The total number of beds is 1,278, of which 700 are occupied on a daily average throughout the year. The following University clinics are admitted to the wards of this hospital: medical, medical propædeutic, surgical, surgical propædeutic, ophthalmic, dermatological, and obstetric and gynæcological.

(β) L'Ospedale dei Cronici, of which Giuseppe Rombo is director, was founded in 1499 to supplement the Pammatone by receiving patients of both sexes suffering from chronic diseases excluded therefrom, and it has since been gradually enlarged. It is two-storeyed for the most part, the height of the wards on the ground floor varying from 23 ft. to 28 ft., and on the first floor from 14 ft. to 19 ft. The cost of the building and additions is not known, but the furniture and fittings are valued at £5,000. There is a total capacity of 1,000 beds, of which 720 are occupied on a daily average throughout the year.

(iii.) *Milan.*

Dependent upon the honourable Council of Hospital Institutions in Milan are:—

1. L'Ospedale Maggiore, with the following branches:—

(α) Casa di San Antonino, Via Francesco Sforza.

(β) Casa di San Michele ai Nuovi Sepolcri, also known as La Rotonda, Via San Barnaba.

(γ) A branch named after the Via Sanzone, in which it is situated.

(δ) A branch called l'Ospedale di Cernusco sul Naviglio, situated in the commune of that name.

2. L'Ospedale Ciceri, also known as l'Ospedale Fatebene Sorelle, for females.

3. The institution di Santa Corona, intended to treat the sick in their own homes, such homes being situated within the city and near l'Ospedale Maggiore.

L'Ospedale Maggiore was founded in 1456 by Francesco Sforza, and its original cost cannot possibly be ascertained. It was enlarged in 1624 by Giovanni Pietro Carcano at a cost of about £60,000, the architects employed being Pessina Giovanni Batta, Francesco Maria Richini, and Fabio Mangoni, and again in 1797 by Giuseppe Macchi at a cost of some £32,520, the architect on that occasion being Pietro Castelli. It is approached from the Via Ospedale by three doors opening into a large court, and the edifice itself measures about 885 ft. by 354 ft. The more ancient part—

in appearance a mixture of the Lombardy and Roman styles, with small windows having a pointed arch divided into two parts by a slender exquisitely engraved pillar—is the most beautiful work of Antonio Pilarete of Florence, architect. The wards are spacious, varying in height from 15 ft. to 32 ft. on the ground and first floors, and are divided into separate compartments for males and females and for the various offices. Both surgical and acute medical cases are received.

La Casa di San Antonino presents no remarkable nor special features, and is certainly not on a level with the scientific and hygienic requirements of the day. Its wards leave a good deal to be desired from a sanitary point of view. This institution receives cutaneous diseases.

La Casa di San Michele ai Nuovi Sepolcri, situated in the Via San Barnaba, consists of a church in the centre and a meadow surrounded by porticoes, and was formerly used for the interment of the dead from l'Ospedale Maggiore. In 1858 the church and porticoes were adapted for the reception of contagious cases.

The branch in the Via Sanzone is intended for the treatment of prostitutes.

Of l'Ospedale di Cernusco sul Naviglio, which stands on a most beautiful site formerly occupied by a palace, we have received no particulars.

L'Ospedale Ciceri, or Fatebene Sorelle, was founded in 1823, and in 1836 was removed to a specially erected building which is excellent in construction and could hardly be in a finer position. It affords treatment to women suffering from acute diseases.

In addition to the patients received into the various wards of l'Ospedale Maggiore and its branches and of l'Ospedale Ciceri, patients are also treated at the expense of the Santa Corona Institution in their homes within the city walls, in medical, surgical, and special diseases. The sanitary staff of this establishment is composed of physicians, surgeons, specialists, and accoucheurs. These gentlemen, who are twenty-four in number, are each appointed to a district in which they practise for the benefit of the poor. Each of them also attends at an out-patient department near the institution, where they see those patients who, although suffering from medical or surgical diseases, are yet not confined to bed. There are, moreover, four assistant medical officers who lend their services in the absence of the real officials. Several specialists also have out-patient departments near the institution, where they attend at

fixed hours of the day for special diseases of the eye, throat, and ear, and for dentistry, gynæcology and so forth. Two specialists in obstetric medicine are available when their services are required, but as a broad rule the obstetric work is performed by six accoucheurs.

In l'Ospedale Maggiore two courses of theoretical and practical instruction are held during the spring, one in surgical anatomy and operative surgery by Sig. Cav. D. Giovanni Albertini, and the other in pathological anatomy by Sig. Cav. D. Achille Visconti. These courses of instruction take the form of conferences twice a week on each subject.

(iv.) *Naples.*

The institution which bears the official title of Reale Santa Casa degl' Incurabili, was founded by Maria Longo in 1519 and subsequently enlarged. It comprises what is called l'Ospedale di Santa Maria del Popolo, where, without any distinction of age, sex, creed, or country, poor patients are received suffering from chronic curable diseases, phthisis, diseases of the eye, and stone, and also a branch hospital in the commune of Torre del Greco, originally founded in 1567 by Ferdinand Bucca and attached to the Incurable Hospital by a Papal Bull dated the 11th of January, 1570. This is a special hospital for serous and scrofulous ailments.

There are no medical schools connected directly with the hospital, but the senior and assistant medical officers can give private instruction there with the Board's consent. There are nine wards altogether, varying in height from twelve feet to twenty-one feet. The total number of beds is 380, and the daily average number occupied is 340. The original cost of the institution is unknown, but the furniture and fittings are valued at £6,800.

(v.) *Palermo.*

The hospitals of Palermo trace their origin back to the suppression of the various small hospital institutions, formerly attached to convents and confraternities, which existed up to the end of the year 1432, at which period they were all combined, at the instance of one Giulano Majale, in one large establishment, the Palazzo Sclafani, standing in what is now the Piazza Vittoria, whence by a decree promulgated in 1853 it was transferred to its present site in San Saverio. Its official title is l'Ospedale Civico e Benfratelli di Palermo, and it affords treatment for all acute diseases, being divided into medical, surgical, phthisical, children's, gynæcological and

obstetric, ophthalmic, cutaneous and venereal, and gangrenous and cancerous sections. It is a large two-storeyed building standing at the south-west of the Royal Palace; the women and children occupy the first, and the men the second floor. Professor Vincenzo Machesano is director. No medical schools are attached to the institution, but there are branch hospitals for various clinics of medicine, surgery, ophthalmics, and obstetrics. The institution comprises the hospital of Santa Maria dello Spasimo for venereal diseases and clinics of dermatology and syphilis, and also the little Hospital della Liza for phthisis.

The estimates allow for 300 beds, but when this number is insufficient the province and commune combine to defray the extra expense up to 500 beds, a number, however, which is often exceeded. Each storey is eighteen feet in height. Of the original cost of the institution no record has been preserved, but £10,794 have been spent in alterations, and the furniture and fittings cost £4,000.

(vi.) *Rome.*

L'Arcispedale Santo Spirito in Sassia, Roma, Borgo S. Spirito, was founded expressly as a hospital for the sick by Pope Innocent III. in 1203, its scope being determined by the Papal Bull "*Inter Opera Pietatis.*" It gives accommodation to the clinical, medical, and oculist schools of the Royal University, for which the Minister of Public Instruction pays the Administration an appropriate indemnity. Commendatore Augusto Silvestrelli is chief administrator, and Dr. Achille Ballori is medical director of this institution. It is situated on the right bank of the Tiber, Rione XIV. of the City, and occupies an extensive site, but the gardens and exercise grounds are small. It is for the most part one-storeyed, and the height of the wards varies from sixteen feet to thirty-nine feet.

(vii.) *Torino.*

Tradition ascribes the earliest origin of the hospital here to the piety of a canon of the Maggiore church, or Duomo, who having found a poor invalid lying deserted and almost dying beneath the piazza in front of the church, effected his removal to a chamber in the adjoining campanile, where he was provided with the necessary relief. This event must have occurred towards the end of the twelfth, or beginning of the thirteenth century. From ancient papers and authentic documents it appears, moreover, that in the beginning of the thirteenth century, asylum and treatment were

afforded to patients in a cottage near the Duomo belonging to the Chapter, this cottage being named *Spedale del Duomo* or *Spedale di Santa Catarina* after an adjacent chapel. Asylum being provided from the property and estate of the Chapter, and the institution having been enlarged and maintained by bequests and charitable donations, it was, from its opening until 1500, governed and maintained by the Chapter, to whose piety its foundation must undoubtedly be ascribed.

In the first half of the fourteenth century, when the *Opere Pie* suffered great losses of patrimony in consequence of the French invasion, and had to bear heavy and disproportionate expenses in maintaining the extraordinary number of sick poor and wounded soldiers, the Chapter, recognising the insufficiency of their own funds, applied to the municipal authorities to assist the institution with a subsidy. In 1541 the city council acceded to this request and provided the hospital with means, joining the Chapter thenceforward in its management and administration. It was in 1578 that the institution adopted the title it has borne ever since, viz. : *Ospedale Maggiore di San Giovanni Battista e della Città di Torino*. It has preserved its original object of treating the sick poor, and is reserved for those suffering from curable diseases to the exclusion of chronic and contagious complaints, as specified in its organic statute of 1881.

The main block of the hospital was built between 1680 and 1689 from designs by Count Amadeo di Castellamonte, at a cost of £66,386; the church in 1702 at a cost of £4,800; the block forming the south front in 1835-36 at a cost of £6,000; and the western wing was enlarged in 1887-88 by the present architect to the institution, Cav. Tomaso Prinetti, with a view to providing large new wards and adequate accommodation for the University practical school of clinical surgery, at a cost of £3,200. The furniture and fittings are valued at £10,414.

The hospital is quadrangular, with three lofty sides and a lower one. In the interior are various blocks of buildings and six courtyards. It stands near the heart of the city, and is isolated on three sides by highroads and on the fourth or eastern side by a broad terrace.

The north side forms the principal front, and in it are the great entrance and two other doors giving access to the wards and interior buildings. The rooms on this side are devoted to the pharmacy, out-patients' room, patients' receiving room, and sanitary guard. It

also contains the quarters of the sister-superior, director of the dispensary staff, and board offices. On the second floor are private rooms for paying patients, and others devoted to a section of the University medical clinic. All along the inside front of this side, on the ground and first floors, runs a broad portico.

The east and west sides each contain two large wards. Between these wings of the main edifice runs a shaft of like proportions, starting from the ground entrance hall, and going as far as the church; this is crossed at the end by another similar block which connects the two wings. These intermediary cruciform blocks form eight wards which, with those in the wings, are devoted to ordinary patients, the males being placed on the ground floor and the females above. In the basement of the transverse block towards the west are the kitchen offices, and in one of the courtyards are the laundry and drying-grounds.

Two blocks, between the end of the wings and the intermediary horizontal shaft, are used—the one to the west as a kitchen, dining-hall and quarters for the sisters attached to the institution, and the one to the east for male paying patients in private rooms and also for the chaplain's quarters.

The block terminating the hospital buildings on the south, which is two storeys high in the middle and one story high at each end, is used as the University school of pathological anatomy, as the hospital laboratory and anatomical museum, and as the quarters of the incurable chronic cases. Attached to this block on the interior are some small buildings used as a mortuary chamber and a ward for diphtheritic cases among children.

Along the western wing on the interior are surgical operation rooms and quarters for the medical and attendant staff who sleep in hospital, and at the southern end of this wing are two large wards with private rooms adjoining, devoted to the clinical school of surgery. The wards and rooms of the University school of medicine are at the northern and southern extremities of the eastern wing.

In this connection we may say that four wards are allotted to the University schools of medical propædeutics, general medical clinic, surgical clinic, and clinic of practical surgery, while the University also has a school of anatomical pathology. In accordance with the regulations imposed by the statute of 1881 it also is used, and somewhat more liberally than in early days, for study and practical work by young medical men. The new

regulations having fixed the assistants' term of service at six years only, have formed this hospital into a kind of nursery for sanitary officials who, being afterwards distributed among the communes of the kingdom, and more particularly among those of the old provinces, bring to the relief of the sick in the small centres of population all those scientific and practical attainments which they have been enabled to acquire during their hospital course, at the hands of distinguished senior medical officers.

It only remains to be added that the wards occupied by the ordinary patients are 34 feet in height on the ground floor, and 28 feet in height on the first floor; all are $32\frac{2}{3}$ feet in width; and eight measure 128 feet and four 272 feet in length. The beds are placed about $3\frac{1}{2}$ feet apart from each other and are arranged in two rows separated by a wide walk, and about 3 feet from the walls. Exclusive of those on the incurable side they number 532, about twenty-five being in each ward. The daily average number of beds occupied throughout the year is 451, and this would be larger if it were not that during the University vacation the University clinical medical wards, which contain seventy-seven beds, are closed.

Count Massimo Biandra di Reaglie is president of the Administration, and Duteo Guglielmo is director of this interesting institution.

(viii.) *Venice.*

The Civil Hospital of Venice originated in the centralisation effected by virtue of decrees dated the 18th of January and the 7th of December, 1807, which ordered the collection in one place of the patients then lying in the hospitals for abandoned and incurable persons of St. Peter and St. Paul, and in the San Antonio hospital. Opened originally on the site of the old Incurable Hospital, it was transferred in 1819 to its recently enlarged site in the neighbourhood of the Mendicant Hospital. This last-mentioned institution was founded in the thirteenth century for the reception of pilgrims returning from the Holy Land, and was removed from its original site in the island of S. Lazzaro to another at SS. Giovanni e Paolo at the end of the year 1595.

Signor Massimiliano Cipolata is president of l'Ospedale Civile di Venezia. The present institution is a conglomeration of buildings which in early days served quite other purposes. The southern part, originally St. Mark's school, was built by the brothers Lombardi; the western part was the old Mendicant

Hospital ; and the eastern part was once a Dominican monastery. The north-eastern part was a block of private houses, recently demolished, and is now a mass of buildings forming a rectangle about 803 feet long by 360 feet wide. This new portion, which comprises nearly a sixth of the total area of the new hospital, is not yet completed, and it is anticipated that the cost will exceed £40,000.

Three of the blocks are of one floor only ; others have two, three, and four floors above the ground floor. The height of the wards varies from 9 feet to 26 feet. Their shape is quadrilateral, and their sizes vary considerably, the largest wards being 131 feet long by 52 feet wide. As a general rule the beds are arranged in two rows near the walls, and it is only when there is extra pressure on the accommodation that one or two rows of beds are placed down the middle of the larger wards. The kitchen is on the ground floor in the centre of the institution, with adjacent offices for stores, cellars, and wood. The church, which was built about 600 A.D., is also in the centre and is intended for the exclusive use of the hospital, and in addition to it there is a chapel on the first floor. The mortuary chamber, anatomical room, and pathological cabinet form a separate block situated at the north-east of the hospital.

The drainage system consists of large subterranean pipes opening into the canal and communicating with the latrines in the wards by means of vertical pipes. The masonry forming the foundations of the hospital goes to a depth of about $6\frac{1}{2}$ feet below the ordinary water-mark, and about $9\frac{1}{2}$ feet below the ground-level, and is laid over wooden trellis-work and palisades sunk to the depth of about $16\frac{1}{2}$ feet according to the nature of the subsoil. The foundations are usually trapezoidal. This system is seldom varied, being solid in construction and quite equal to the super-imposed weight of the buildings.

The senior obstetric surgeon to the hospital is also president of the Royal School of Obstetric Medicine. In the latter capacity he is paid from the Royal Treasury, appointed by Royal Decree, and subservient to the Royal University of Padua, while in the former capacity he is paid by and subject to the council of administration of the hospital.

The total number of beds is 1,150, of which 1,000 are occupied on a daily average throughout the year.

ADMISSION OF PATIENTS FREE AND BY PAYMENT.

We give below brief but comprehensive extracts from the regulations of several of the more important hospitals of Italy with regard to the admission of patients. Summarising the whole matter into a few words, it may be said that when patients desire to receive gratuitous hospital treatment they must produce, in addition to the medical certificate of illness, a declaration of indigence signed by some responsible person or corporation, such as the curé of their parish or the municipal council within whose jurisdiction their domicile lies. With regard to paying patients the information received is not very precise, and moreover in the financial statements placed at our disposal the accounts are generally furnished of the expenditure on the patients as a whole and are not kept separately for the free and the paying patients. Consequently we are unable to determine the average rate of payment made by private patients. With these preliminary remarks we append a detailed statement on the subject of admission of patients, maintaining the same alphabetical arrangement as in the preceding section.

(i.) *Florence.*

Poor patients are admitted into the hospitals of Florence by means of tickets issued by the commune in which is their place of domicile; and others who, without being poor, still wish to be treated in hospital, make a three months' deposit in advance of the hospital rate. Patients unprovided with tickets or money may in urgent cases be admitted upon the authority of the medical officer on guard. Copies of the order of admission granted by the commune of Florence, and of the notice to be given to the communes of admission upon urgency, are sent in. Patients who are not actually indigent have to pay a rate fixed annually in the estimates and are divided into two classes, ordinary and special, the rate varying for each class.

(ii.) *Genoa.*

Patients are admitted for treatment only on production of a certificate of indigence furnished by their curé, and a certificate that they have for three years been domiciled in the commune.

(a) At l'Ospedale di Pammatone in-patients are received on payment of a daily maintenance rate of 2.50 *lire*, or nearly 2s. If they belong to any institution or commune they must come pro-

vided with the usual application for admission from their chief or syndic. If they come at their own charge they must pay a month's fees in advance and produce a guarantee from some solvent person domiciled in the city for future payment of their charges.

(β) At l'Ospedale dei Cronici in-patients are admitted free or on payment. Out-patients are received on private or municipal payment. To be admitted as a free patient, application must be made to the president of the council of administration, and the following documents must be put in: (1) certificate of birth, parentage, and domicile for at least three years in the commune of Genoa, supplied by the municipal board; (2) medical certificate of disease; and (3) a judicial declaration that the applicant is really poor and has no relatives nor other persons legally responsible for his maintenance. With regard to the admission of communal patients, a letter must be put in from the syndic.

Paying patients are admitted at daily rates varying from 1*s.* 7*d* to 2*s.* Of an average number of 700 patients, some 460 pay and some 240 are free, but in the former number are included some 260 at the charge of l'Ospedale di Pammatone who may really be regarded as free. The annual revenue from this source is about £4,400, including £3,200 at the Pammatone, thus producing £13,200 in three years, of which the Pammatone drew £9,600.

(iii.) *Milan.*

The forms necessary for the admission of patients into l'Ospedale Maggiore and its branches vary according as the person in question lives inside the city or in the communes outside.

In the first case, if the disease is acute the patient is visited by a doctor who leaves a declaration showing the necessity of treating the patient in hospital, and also whether the case is to be admitted as an urgent one, or whether the admission can be delayed a few days. If the former, the patient, provided with his medical certificate and another setting forth his indigent circumstances—which also can be deferred in cases of utmost urgency—is taken immediately to the hospital; if the latter, the medical certificate and proof of indigence are taken to the Santa Corona institution and given to the inspectors of that establishment, who in their turn are charged to repair to the patient's domicile and ascertain the necessity of his admission into hospital. This done, they leave him a ticket of admission. When the patient is in the course of an obviously or presumably chronic complaint—and this must

be specified in the medical certificate—it is indispensable to his admission that he be provided with a bond from the commune declaring that whereas the patient must be entered among the chronic cases, his hospital expenses from the date of such entry shall be defrayed by the commune.

In the second case, in dealing with patients living in the suburbs or outside communes and wishing to be received as in-patients in the hospital, a medical certificate and declaration of indigence must be lodged with the chief of the medico-chirurgical assistance office, if the patient lives in the suburbs and is suffering from acute disease. If he is suffering from an obviously or presumably chronic complaint the communal bond must also be presented. The chief of this medico-chirurgical assistance office, after due examination of the documents presented, issues a ticket of admission by means of which the patient is received into hospital.

When the patients live in outside communes, and their admission into hospital is necessary, it is requisite, if the commune is not more than six miles distant from Milan and if it possesses a post office, to supply the above-mentioned chief of the medico-chirurgical assistance office with the medical certificate and communal bond. The chief, having ascertained the degree of urgency of admission, forwards or delays the transmission of the admission ticket. If the commune is more than six miles distant from Milan, and has no post office, patients may be sent without previous application for an admission ticket, but they must always present themselves at the hospital furnished with a medical certificate and declaration of indigence. In cases of absolute urgency, patients may be sent direct to hospital, wherever their domicile may be.

For admission into l'Ospedale Ciceri there must be lodged with the inspectors of that institution a declaration of indigence and a medical certificate to the effect that the applicant has no chronic nor contagious complaint, that she is neither enceinte nor has been recently confined, and that she is in no way mentally affected. All applicants for admission into this institution are visited at home by the medical officers of the hospital who according to the individual cases either leave or do not leave admission tickets. In this establishment there are endowed beds which cannot be assigned to any patient who has not the authority of the founder ; some of these beds are for acute and others for chronic cases.

Paying patients are admitted into both these institutions, and it should be noted that patients suffering from contagious or trans-

missible diseases are never admitted except upon payment. In the following tables are given the number of diets in 1886–8 in two of the hospitals of Milan, the total cost, the daily rate for patients as shown in the financial statements of the institutions, &c.

Table showing the Number of Diets, Total Cost, and Daily Rate for Patients at l'Ospedale Maggiore.

Year.	Number of Diets.	Cost.			Daily Rate.	
		£	s.	d.	s.	d.
1886	735,167	62,259	18	6	1	8'11
1887	753,357	64,089	16	11	1	8'20
1888	775,506	65,061	2	5	1	7'92

In this annual expenditure is also included the sum for the treatment and maintenance of the paying patients, but we append below the sums in which the institution would be reimbursed by private patients, and by the communes and boards :—

Year.	From Private Patients.			From Communes and Boards.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
1886	484	11	2	25,219	17	1	25,704	8	3
1887	446	7	7	26,209	7	4	26,655	14	11
1888	371	12	6	27,605	12	6	27,977	5	0

The corresponding figures for l'Ospedale Ciceri give the following results :—

Table showing the Number of Diets, Total Cost, and Daily Rate for Patients at l'Ospedale Ciceri.

Year.	Diets.	Total Cost.			Daily Rate	
		£	s.	d.	s.	d.
1886	40,228	4,806	4	10	2	4'37
1887	39,069	4,670	9	10	2	4'39
1888	41,680	5,012	10	7	2	4'56

Table showing the Amount in which l'Ospedale Ciceri was reimbursed by Private Patients and by other Institutions.

Year.	From other Institutions.			From Private Patients.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
1886	189	4	2	276	14	0	465	18	2
1887	211	9	4	244	18	0	456	7	4
1888	212	5	7	303	8	0	515	13	7

(iv.) *Naples.*

The medical officers and the director of the hospital here are the only persons responsible for the admission of free patients into the institution, the only conditions being that there is accommodation available and that the applicant is not suffering from any disease excluded from treatment in the establishment.

Indoor paying patients are admitted and are divided into three classes: (1) those requiring to undergo important operations, and placed in single rooms; (2) those desiring single rooms, but not requiring important surgical interference; and (3) those sharing rooms with other patients. The daily rate is fixed at 4*s.* for the first, 2*s.* 4½*d.* for the second, and 1*s.* 7*d.* for the third class. Payment is made fortnightly in advance and patients who wish to be discharged before the fortnight has expired have a right to a return of half their fees if they have not been in the institution for more than seven days. This half is also restored to the proper heirs or representatives of patients who die before completing seven days' residence in hospital. Applicants for admission by payment send in their request to the director of the institution, who causes them to be visited by the medical officers of the pay wards, and if they are considered suitable cases they are admitted forthwith.

(v.) *Palermo.*

By the terms of the Organic Statute, approved by Royal Decree dated 24th May, 1868, the Civil Hospital of Palermo affords care and treatment to patients from the city and province in proportion to the revenue derived therefrom, and by ancient custom it receives and treats patients from the other provinces, provided they pay the daily hospital rate of 1*s.* 7*d.* in the medical and 2*s.* in the surgical wards, or when they present themselves for immediate assistance. Patients who, although not indigent, still desire hospital treatment, are also admitted on payment, and those who wish for private rooms pay a daily rate of 4*s.* 9*d.* on the medical and 6*s.* 4*d.* on the surgical side. In 1887 these payments amounted to £475 15*s.* 8*d.*, in 1888 to £517, and in 1889 to £729.

With regard to free patients, they are received into the general wards at the discretion of the medical officer in charge, provided always that their indigence is clearly established, and also their domicile in the commune or province.

(vi.) *Rome.*

Any patient recognised by the medical officer on guard is admitted to hospital treatment without the production of any documents being necessary. In-patients are received upon payment, but the number of private rooms being limited to seven their number is insignificant. The daily rate of payment is about 3s. 2d.

(vii.) *Torino.*

Patients are admitted into l'Ospedale Maggiore who are suffering from acute disease which is neither contagious nor venereal.

Poor persons applying at the hospital, wherever their domicile may be, must be provided with certificates of indigence. They are seen by the receiving medical officers, and, if declared suitable cases and furnished with the necessary documents, they are immediately placed in the beds assigned to them.

Patients in easy circumstances are placed in rooms containing one or two beds, according to their wish, and are entitled to select the physician by whom they desire to be treated. The payments are made fortnightly, and range from 19s. 9½d. for beds in the ordinary wards to £2 in double-bedded rooms, and to £3 in single rooms. Children are charged 11s. 10½d. per fortnight. In 1887 the private patients numbered 667, and paid £2,337 1s. 4d.; in 1888 there were 669, producing £2,356 9s. ; and in 1889 they numbered 724, and paid £2,432 9s. 5d. Out-patients are not received on payment.

(viii.) *Venice.*

Only in-patients are admitted into the Civil Hospital, free maintenance and treatment being given to the poor of both sexes from Venice who may be suffering from any acute or contagious disease, but not from chronic or mental maladies. It is only by way of exception, and when the accommodation is in excess of the requirements of the poor of Venice, that patients are received from other communes, their expenses being then defrayed by their place of domicile.

To obtain free admission to the hospital a certificate of indigence is required, setting forth the birth, habitation, and domicile of the applicant, and granted by his syndic, and also a medical declaration that proper treatment cannot be obtained at home owing to lack of means, accommodation, and attention. In the

case of poor patients who are not Venetians, an acknowledgment of their financial obligation must be produced from the commune or corporation to which they belong. Patients who cannot be refused admission without prejudice to health or risk to life are received, whether provided or not with the documents referred to; but an official statement of these proceedings is made, and provision must be made as soon as possible for the documents, deposit, or guarantee.

Paying patients are received upon the same conditions as poor non-Venetians. In 1886 they numbered 6,845, and paid £798 17s. 2d.; in 1887 there were 9,194, producing £992; and in 1888 they numbered 11,293, and paid £1,205 14s.

MAINTENANCE OF ITALIAN HOSPITALS.

Owing probably to the varied nature of the work performed by the Opere Pie of Italy it is difficult to obtain a clear statement of the financial operations of any single hospital in the country. Whatever the reason may be, the fact remains that the information we have received on this point is very scanty.

We have already shown how all these institutions possess a patrimony of their own, and how, when at different periods the income accruing from this source was found to be inadequate for the work that had to be done, an appeal was made to the several municipal or provincial councils for an annual grant from the public funds. It is from these two sources that Italian hospitals are still maintained, donations or bequests of money being paid into the patrimonial fund, while the revenues are further increased by patients' payments, whether private or communal, by sale of medicines to the public, and by various other means.

We now append such facts as we have elicited from the eight places previously referred to in detail.

(i.) *Florence.*

L'Arcispedale di Santa Maria Nuova is maintained out of the revenues accruing from its own patrimony, reimbursements of hospital expenditure made by the municipalities for their poor, and fees paid by private patients.

In 1887 the total revenue was 1,451,633·13 *lire* or £58,065 6s. 6d., and in 1888 it amounted to 1,489,208·58 *lire* or £59,568 7s. 10d. On the other hand the expenditure in 1887 amounted to

1,302,375·13 *lire* or £52,095, and in 1888 to 1,372,396·36 *lire* or £54,895 11s.

The nominal revenue accruing to the Opera Pia from the public funds is 326,991 *lire* or £13,079 12s., and the real estate is valued at 873,411·86 *lire* or £34,936 9s. 6d. The patrimony is composed of this nominal revenue from the public funds, and of fines imposed upon lands and tenements held in emphyteusis, and originally devolving upon the Opera Pia by bequest or donation. It also includes rents.

(ii.) *Genoa.*

The patrimony of the Pammatone Hospital is composed of urban and rural funds, mutual capital and revenue from the public funds, and finally any deficiency caused by excess of expenditure over revenue is made good by subsidy from the State, actually provided by the municipality of Genoa. The revenue for 1888 is returned at 1,176,941·25 *lire* or £47,077 13s., and the expenditure at 1,067,850·02 *lire* or £42,714.

For the year 1890 the patrimonial revenues were estimated at £13,200, burdened, however, to the extent of more than £9,000; the product of sale of medicines to the public was put at £2,000, municipal subsidy at £17,600, patients' payments at £6,000, and revenue from other sources at £2,400.

The public funds produce £5,658 3s. 4d., while the property is valued at £48,000 in productive real estate, and £240,000 in non-productive estate.

At l'Ospedale dei Cronici, which, like the Pammatone, is endowed with public revenue and real estate, the revenue in 1888 was £20,901 5s., and the expenditure £18,034 7s. For 1890 the revenue was estimated at £6,000 from patrimonial income, burdened, however, to the extent of £4,000; £800 from sale of medicines; £6,000 from patients' payments; £2,400 from municipal subsidy; and £1,600 from various other sources.

The public funds produce £2,480 net revenue, and the value of the productive real estate is calculated at £20,000; and of the un-productive at £60,000.

(iii.) *Milan.*

Premising that the annual accounts are made up for the solar year from January 1 to December 31, the following are the figures for 1887 and 1888 at the Maggiore Hospital:—

Table showing the Revenue of l'Ospedale Maggiore.

—	1887.			1888.		
	£	s.	d.	£	s.	d.
Total patrimonial revenue	74,976	6	4	71,148	0	0
Contributed by other institutions	4,460	9	7	4,234	15	0
"Dozzine Altive"	26,655	15	0	27,977	5	0
Subscriptions, &c.	534	16	6	368	10	0
Total revenue	106,627	7	5	103,728	10	0

Table showing the Expenditure of l'Ospedale Maggiore.

—	1887.			1888.		
	£	s.	d.	£	s.	d.
Charges on patrimony	8,413	2	4	8,340	4	4
Expenditure on patrimony and administration	31,278	7	1	31,185	10	0
Charitable expenditure	65,425	2	3	66,435	14	6
Total expenditure	105,116	11	8	105,961	8	10

No investments in land nor acquisition of property occurred in these two years.

The following are the corresponding figures for l'Ospedale Ciceri:—

Table showing the Revenue of l'Ospedale Ciceri.

—	1887.			1888.		
	£	s.	d.	£	s.	d.
Patrimonial revenue	7,648	10	6	8,015	5	0
"Dozzine Altive" {	244	18	0	303	8	0
	211	9	6	212	5	7
	698	12	4	823	18	11
Total revenue	8,803	10	4	9,354	17	6

Table showing the Expenditure at l'Ospedale Ciceri.

—	1887.			1888.		
	£	s.	d.	£	s.	d.
Charges on patrimony	367	15	6	343	15	0
Expenditure on patrimony and administration	2,047	15	4	2,133	6	3
Charitable expenditure	5,369	2	2	5,850	17	6
Total expenditure	7,784	13	0	8,327	18	9

(iv.) *Naples.*

The hospital here is endowed with real estate and money bequests, and is largely supported by private munificence.

The revenue in 1887 amounted to £35,076 7s. 6d., and the expenditure to £38,413 19s., while in 1888 the revenue was £41,425 16s. 3d., and the expenditure £40,275 4s. 10d.; there thus being on the two years' financial operations an excess of expenditure over revenue to the amount of £2,187.

(v.) *Palermo.*

The hospitals of Palermo are endowed with money and real estate, and their income is derived from rents, hypothecations, public revenues, bequests, and provincial and municipal subsidies. The Government also pays the hospital £1,880 per annum for its outlay in maintaining the university clinics. The private income is about £14,356, the provincial subsidy £2,880, and the municipal subsidy £96. The total revenue in 1888 was £20,889 18s., and the gross expenditure was £21,625 10s. 6d.

(vi.) *Rome.*

L'Arcispedale Santo Spirito has passed through a chequered career from a financial point of view, but since 1885 it has been placed under the control of fresh authorities of prudence and experience, and is expected before long to be on a really satisfactory basis again. It is maintained for the most part from the income from its patrimony, composed mainly of real estate, titles, credit funds, and so forth. The gross income in 1887-8 was £65,073 3s. 6d., and the gross expenditure was £74,675 19s. 2d. The value of the property and invested funds was declared to be £545,601 1s. 6d.

(vii.) *Torino.*

The hospital of Torino provides for its needs with the income from its own patrimony, with fees from paying patients, with subsidies from the Government and University for the work of the medical schools, with a municipal subsidy paid on behalf of the medical and surgical ambulance service and for the care of diphtheritic children, and finally with donations and bequests.

In 1887 the revenue from the patrimony was £12,587, and from various other sources £3,968, giving a total income of £16,555.

In 1888 the revenue from the patrimony was £12,662 15s., and

from various other sources £6,123 13s. 6d., giving a total income of £18,786 8s. 6d.

In 1889 the revenue from real and personal property was £12,806 15s.; from patients' payments £2,432 9s. 6d.; from Government and University grant £1,200; from the municipal grant £280; and from various sources £987 14s. 6d.; in all £17,706 19s.

The real estate of the institution is declared to be worth £163,354, the invested capital £151,353, and the hypothecations and sign manuals £7,976, giving a total patrimony of £322,683.

Of the expenditure in 1889 we have received no details, but in 1887 and 1888 it was as follows:—

Table showing the expenditure of the Torino Hospital.

—	1887.			1888.		
	£	s.	d.	£	s.	d.
Administration, repairs, &c.	3,189	13	0	2,990	17	0
Charges on property	1,069	13	0	972	14	0
Charitable expenditure	14,905	16	0	13,336	5	0
Total expenditure	19,165	2	0	17,299	16	0

(viii.) *Venice.*

The gross value of the invested property of the hospital of Venice is £176,000 and of the real estate £7,360. In 1887 the revenue was £27,741 7s. 4d., and the expenditure was precisely the same; in 1888 the revenue amounted to £28,303 3s. 2d., and the expenditure to only £26,621 3s. 5d.

NURSING NOTES.

The following extracts from the regulations of several institutions will give a sufficiently accurate account of the Italian method of appointing the nursing staff in hospitals, of the average remuneration and system of pensions where such exist, and no preface is needed to introduce the subject.

(i.) *Florence.*

All appointments and promotions in the nursing staff are made by the Council of Administration upon the recommendation of the Director. On the male nursing side candidates must be

between the ages of 21 and 28 ; and on the female side they must be between 18 and 26 if unmarried, and between 28 and 45 if widows. All must pass a medical examination to test their physical capacity for their duties ; all the males must be able to read and write correctly, and preference is given in the case of females to those who can do so, although in their case it is not absolutely compulsory ; and, finally, all must have an unbroken record of good conduct. The proportion of nurses to patients is one to twelve for acute cases, and one to eighteen for chronic cases, while special nurses are provided for special cases of contagious or endemic disease. The usual number of male nurses in the hospital is 71, and of females 69, giving a total staff of 140 nurses. They are divided into two classes, the first being on the fixed establishment, with salaries of 1s. 7*d.* per diem for males and 1s. 1*d.* for females, and a title to a pension ; the second being provisional only, paid by the day and liable to dismissal at any time. Transference from the provisional to the fixed establishment is effected in order of seniority, but regard is paid to merit and good conduct in every instance. There is a training school in the institution which must be attended by all the nurses on the temporary or provisional staff before they can be placed on the fixed establishment, and instruction is given by the medical director of the hospital. An institution of very old foundation still exists, in which hospital sisters live and are trained for nursing work ; but it is not conventual in character, and all the members are subject to the directors of the hospital and remunerated by them. The male nurses have special quarters in the hospital, where they can sleep at night while waiting for their turn on duty.

No pension fund, strictly speaking, exists—that is to say, there is no separate fund out of which pensions are paid—but the Organic Statute makes the following provisions on this point :

The salaried and domestic staff of the fixed establishment are entitled to a retiring pension, (1) when they attain the age of 65 years, or when in consequence of severe and protracted illness, incurred from no fault of their own, they are entirely incapacitated from further discharge of their duties ; and (2) when they have been on active service for the entire term of 15 consecutive years if salaried members of the Patrimonial and Sanitary Boards, or for 20 consecutive years if employed on the fixed establishment attached to the Immediate Assistance department. The time available for the liquidation of the pension for males and females on the fixed

establishment begins to run from the day on which their continuous service commenced, although at that time they may have been on the provisional staff. The amount of pension consists of the entire salary when there have been 36 years of uninterrupted service, and of one-third when the salaried members of the Patrimonial and Sanitary Boards have completed 15 years, or the servants 20 years, of service. For every year of service after such term one thirty-sixth of the salary is added to the pension. In no case can the pension be less than £20 for the former, or £14 4s. for the latter. Pensions are calculated on the gross amount of the stipend or wages, including the increase, enjoyed during the last three years of service; or on the average of the stipend or wages received in the last three years, without any claim holding good for emoluments, board, lodging, or any other perquisites, except personal indemnities calculated as part of the salary. Pensions are for life, and constitute a debt on the patrimony of the institution. Widows with or without infant sons, or minor sons may claim half the pension to which their husband or father dying on active service would have been entitled on the day of his death, provided, however that such pensions do not exceed one-third of the salary; but these pensions are forfeited by widows on re-marriage and by sons on attaining majority.

(ii.) *Genoa.*

At l'Ospedale di Pammatone the male nurses are lay officials and draw salaries. In the female wards the nursing service is entrusted to the foundlings maintained in the institution, exception being made in the lying-in department, where there are twenty-eight salaried nurses with board and lodging. All receive instruction from the senior ward officials. Applicants for engagement as nurses must produce certificates of birth and good conduct. They are engaged first of all for two years, at an annual salary of £28 16s., and if during this term of probation they have rendered good and faithful service, they are appointed effective nurses by the Administration and draw an annual salary of £31 4s. Their number is fixed at 100.

At l'Ospedale dei Cronici there are thirty salaried male nurses, the work in the female wards, as at l'Ospedale di Pammatone, being done by the foundling children. At neither of these hospitals is there a special home for nurses

(iii.) *Milan.*

The staff of attendants at the institutions here is composed of superintendents, who are Sisters of Charity, and male and female nurses. The male nurses are recruited from applicants for the post who come from the county or town, and the female nurses from young girls or widows from the county. Both are salaried, and the females live together under charge of the Sisters Superintendent. The females do most of the work on the male and female side, but only male nurses attend in the venereal and insane wards, in those for cutaneous disease and in the male surgical wards. By the regulations each ward—containing some sixty beds—is looked after by one Sister Superintendent, assisted by four female nurses who receive help in the heavier work from an appropriate domestic staff. In the wards where only male nurses are employed the usual number of nurses is four, but here, too, there is a Sister Superintendent in charge. The number of male nurses upon the fixed establishment is 54, and of females 156; but supplementary nurses are engaged when there is any vacancy among the staff of either sex. In addition to the ordinary male nursing staff there are other men-servants, such as litter-bearers, dead-bearers, and so forth. The entire staff receives special instruction in the methods of attending to the sick, and proper training is given them to ensure their doing their work intelligently and with the utmost advantage to their charges.

Before being received on the nursing staff, candidates of both sexes have to undergo an examination, proving their ability to read and write, and their knowledge of the first four rules of arithmetic. With regard to age the men must be between 21 and 30, and the women between 18 and 25. Their character must be good. All promotion is made by examination.

Both at l'Ospedale Maggiore and l'Ospedale Ciceri there are special quarters for the nurses, but they are not detached and we have received no details respecting them. No pension fund exists, but pensions are occasionally granted by way of favour, and are then paid from the hospital patrimony.

(iv.) *Naples.*

The nursing here is entrusted to 36 Sisters of Charity, who draw an annual salary of £8 without board. They reside in an old conventual building of their own near the hospital, with which there is

private communication. There are also 88 male and 50 female attendants engaged by the Superintendent; the former draw a monthly salary of £1 12s., and the latter £2, with a daily allowance of bread. These nurses have no special quarters.

(v.) *Palermo.*

The nurses here are of both sexes, and all are lay officials. There are two male nurses in each male ward containing about forty-two beds, and two female nurses in each female ward containing about twenty-six beds. There is no proper training school. They are admitted as extraordinary unpaid officials, after undergoing an examination in reading, writing, and the four elementary rules of arithmetic. After six months' practice in the wards, those who are retained as suitable begin by replacing nurses who are absent from illness or suspension, and draw the salary of those whom they represent. None are entitled to pension.

(vi.) *Rome.*

To be admitted as nurses in the Roman hospitals candidates must be able to read and write, must bear a good character, and must not be less than eighteen nor more than thirty years of age. The number of effective nurses is about 140, with about 20 probationers. Practical teaching is given in the nurses' training school, and their salary is 1s. 7d. a day, with no claim to pension. The proportion of nurses to patients is about one to ten. The menial work is supervised by paid Sisters of Charity, who attend in the male and female wards alike, being assisted in the latter by the female nurses. There is no special nurses' home.

(vii.) *Torino.*

According to the regulations the male nurses are appointed by the President of the Council of Administration. Each applicant must produce the following documents: (1) certificate of birth, showing that he is not less than twenty-five nor more than forty years of age; (2) military discharge, if he has previously served in the army; (3) a certificate from the judicial authorities that no criminal or civil conviction has been obtained against him; and (4) a certificate from the police in his last place of domicile that his character and conduct are good. The two latter certificates must have been obtained not more than thirty days prior to the application.

Candidates must also pass a medical examination as to their physical capacity for their duties, and must be able to read and write.

The female nurses are appointed by the President on the recommendation of the Sister Superior. All members of the staff have to go through a probation of three months' duration, and are liable to dismissal at the end of that time if they have not proved their fitness for the work, without having a claim to any compensation beyond payment for the services they have actually rendered. All are superintended by the Sister Superior and head nurses, and are under the orders of the Director of the institution, medical officers, and sisters.

The male nurses are provided with a cap and alb, which must be worn when they are inside the hospital and returned when they leave the service. Their pay is fixed at £2 16s. per month, except for those nurses who are given board and lodging in the institution, and who draw only £1 per month. In case of illness they are treated in hospital and draw £1, and during convalescence, certified by their doctor and passed outside the institution, they draw £2, this convalescence not to extend beyond three months. The Director can order invalid nurses to be treated in their own homes, and in this case they draw £2 per mensem. They are entitled to five days' absence from work during the year.

The female nurses are paid 6s. monthly, and are given board and lodging; they are also provided with two linen chemises, one uniform, and 9s. 6d. for shoes every year, and also with a flannel under-vest every six years. They live together, and are bound to observe a time-table drawn up by the Sister Superior and sanctioned by the Director.

Male nurses can be punished by the Director with admonition, fines varying from 1s. 7d. to £1 3s. 9d., and dismissal. They are liable to dismissal for repetition of misconduct, for intoxication, for refusal to obey orders, for causing disturbance, and for any trading with the patients. For misconduct reported by the Sister, female nurses can be punished by the Director with reprimand, stoppage of leave, withholding of salary, or dismissal.

For proper training of the nurses of both sexes a school has been founded in the hospital, under the direction of one of the medical officers specially appointed by the Council of Administration; the term lasts from November to June. Anyone is admitted to this school who applies to the Director and produces his certificate of birth showing him to be of age, a certificate of

vaccination or of having had small-pox, and, thirdly, a certificate of good conduct granted to him by the municipal authorities. Persons belonging to any Mutual Assistance Society or any corporation are received simply at the request of their president or superior. At the end of the year the medical officer in charge of the school grants deserving students certificates which declare them qualified to undertake professional nursing.

No pension funds exist, but nurses who, through old age or illness contracted on duty, are incapacitated for further service are granted board and lodging in the institution, generally in the chronic wards, together with a monthly payment of 6s. This also holds good for female nurses, except that the monthly payment varies from 1s. 7d. to 3s. 9d.

(viii.) *Venice.*

The nurses here are all paid officials, appointed without previous training. They are of both sexes, and are in the proportion of one to ten or twelve patients. They are divided into classes; in the first class male nurses are paid 1s. 7d. and females 1s. 3d. per diem, and in the second class the males draw 1s. 5½d. and the females 1s. 1½d. per diem. In the observation wards nurses of both sexes have a daily addition of 4¾d. to their pay, while in the infectious wards special diets are supplied to them.

They are not entitled to pensions, but after long and satisfactory service they may, in the event of being incapacitated, obtain a grant of one single money subsidy, which in some very exceptional cases is made annual. The total number of nurses is about 140, equally divided with regard to sex, and serving in the male and female wards respectively under the orders of a superintendent. Their numbers are augmented in case of need.





CHAPTER XXIV.

PORTUGAL.



PUBLIC health in Portugal was a matter of State supervision as early as the beginning of the fifteenth century, and the direction of public health and of institutions connected with it has been entrusted to different functionaries and councils during the various epochs of the history of the nation.

One of the earliest appointed directing officials was the Physico Mór do Reino, who lived in the reign of John I. This king issued a decree from Coimbra in 1430 that none should practise medicine unless licensed by his officer. Don Manuel in 1521 ordained that foreign as well as native practitioners, and all dispensers, should be approved by the Physico Mór; and it is particularly worthy of notice that while surgeons were not allowed to follow their calling without the consent of the Physico Mór, physicians had to obtain the certificate of the Chirurgião Mór.

By a law of 1609 these officials had to inspect the health service of the various districts of the monarchy, and in 1623 it was decreed that they should examine all drugs imported from abroad.

The Physico Mór was, however, abolished in 1782, and the Junta do Proto-Medico, a medical board, was substituted, and exercised all powers appertaining to the previous office. Some years later, however, we find that the old office of Physico Mór do Reino was restored. This officer was represented by two delegates, one in the north of the kingdom and the other in the south, and in every district he had a sub-delegate.

A Chirugião Mór was first appointed by Alfonso V. in 1448, and confirmed in his functions of inspector in 1481. Don Sebastian commissioned him in 1559 to examine all surgeons who had visited the Universities of Coimbra or Salamanca and the hospital of Guadalupe, as well as those who had attended lectures for two years in the Hospital of the "Holies" in Lisbon. He had to appoint commissioners, throughout the kingdom to overlook those who illegally practised surgery. His functions lapsed, but were again called into existence in 1809. He was represented by two delegates, one in the north and another in the south, as well as by sub-delegates in the various districts. Further, the municipalities were always ready to assist in the execution of his plans, and had to draw up suitable police, economic and health regulations for the societies within their sphere. At the present time the municipal councils have the direction of many weighty matters connected with public health administration in the boroughs.

The Junta da Saude, or Board of Health, came into existence in 1813, and included the Provedor Mór da Saude or Chief Administrator for health purposes, a councillor in law, six medical men, one being Physico Mór or chief physician for the navy, a secretary, two military officials, and the inspector of naval arsenals. It concerned itself with all matters of public health, ventilation of hospitals and similar institutions, and questions of that kind.

The Comissão da Saude, or Health Council, included a president, a military official, a councillor of law, and two medical men, but its functions ceased with the establishment of the Conselho da Saude publica, or Committee for Public Health. The system, however, was in many respects defective, and a new constitution was promulgated in 1837, dealing with civil, military, and naval conditions alike. This Council met three times a week, and the various executive and parish boards had to give effect to its decrees. For each chief government division a delegate, who was required to be a medical man, was nominated by the Council, and for each district a sub-delegate with magisterial and administrative functions was appointed. This latter functionary represented the committee within his district. Each parish had an overseer or superintendent for health purposes. The delegates had the supervision of the medical establishments of charity, whilst the sub-delegates looked after the midwifery department.

The salaries paid to these officers vary from £135 to £112. The fees payable by medical men who have studied at foreign universities, and come to practise in Portugal, are £34 for examination ; in the case of midwives the charge is £2.

As regards military hygiene before the restoration of Portuguese Independence in 1640 little is known. Subsequently to 1677 the Junta of the three estates looked after these affairs, but after 1706 an almost independent military board was set up, having charge of all military hospitals. The Inspector-General of the army in Alemtejo was made Administrator of Military Hospitals, with the superintendence of both curative and administrative functions, but in 1708 power was again placed in the hands of the Junta. In 1788, while the inspection of military hospitals remained with the Junta of the three estates, the provision of funds was entrusted to the General Treasury. Nine years later, in 1797, the first Physico Mór of the army was nominated, and he was made independent of the Junta. In 1822 a medical official belonging to the war department was appointed inspector of health to the army.

Since 1837 there has been a military council for health, including an army physician and two army surgeons, to whom is committed the inspection of all hospitals, ambulances, and stores. Each squadron of troops has its own hospital, which is called the regimental hospital. Lisbon, Oporto, and Elvas have a common military hospital for cases of sickness occurring amongst the garrisons of these towns. In war time so-called "interim" hospitals, partly stationary and partly moving, are called into existence. Another feature of the Portuguese system is the establishment during times of peace of temporary hospitals in the neighbourhood of spas and sea-baths. Soldiers while in hospital receive no pay, and officers are charged at the rate of half their pay.

The Chirurgiões Móres, chief surgeons of state, are the directors of regimental hospitals ; the combined hospital for Lisbon, Oporto, and Elvas has one or more civil medical men in attendance. In times of war a staff surgeon has charge of each fixed "interim" hospital, and has the same powers as the directors of regimental hospitals.

As regards the navy, there was originally a Junta da Fazenda, which was followed by an Admiralty Board, and at a later date by a physician and surgeon of state for the navy. The system was reorganised, however, by a Royal Decree in 1836, when a Marine Board was instituted, consisting of two physicians, one of whom

acted as president, and two surgeons, the secretary being selected from amongst these four officers. All the naval staff in Portugal and her colonies, and all matters affecting the naval hospital in Lisbon, are under this Board. The president has control of the marine police, while the professional men forming the council look after all patients, a marine surgeon being, however, also engaged in the hospital. The marine surgeons number eighteen in all, six belonging to the first class, and the remainder to the second. The president has the rank of captain of a man-of-war with a monthly salary of £9, the other members of council ranking as captains of the second class and receiving £7 per month.

A final reorganisation of the public health service took place in the year 1868, and still continues in force. The law passed in that year placed the highest power in the hands of the Minister of the Interior, with a consultative board of health to assist him. This body was composed of five medical men who were nominated by the Government, and eleven others, including the professor of hygiene in Lisbon, the professor of chemistry, the general staff-surgeon of the army, the captain of the port of Lisbon, and an eminent merchant. The Minister himself is president, and one of the five medical men is vice-president. These gentlemen hold sessions twice weekly, the other members being only summoned as required. This board controls hospitals, foundling homes, and prisons, and has the right of initiative in matters concerning these institutions.

Under the Minister are placed the governors of departments, who direct the various agencies within their own districts, and have always a qualified medical man, nominated by Government, to assist them. If necessary, these governors can call to their aid a council consisting of the delegate in public health, the local sub-delegate, a medical man, the departmental chief engineer, the president of the municipal council, the inspector for cattle, and the captain of the port, where there is one.

In communes and parishes the overseer has the control of matters concerning the health of the public, a qualified medical man, nominated by the Government, acting as his assessor as sub-delegate in health. The overseer is required to inspect all prisons, hospitals, dispensaries, and drug-stores.

At the head of marine hospitals is the Minister, and acting under him is the district governor.

THE HOSPITAL OF SAN JOSÉ, LISBON.

The Lisbon Hospital of San José is the most important in Portugal. It is a vast building near Campo Santa Anna, originally erected for the Jesuits. On its completion in 1593 it was called the Collegio de Santo Antão. It was considerably damaged by the great earthquake which destroyed so much of the town. After the expulsion of the Jesuits it was dedicated to its present uses, and was named San José in compliment to the reigning monarch.

The appearance of the old cloister is grand and imposing, but the sick-rooms are galleries rather than wards. The medical wards, which bear the names of certain saints, are eight in number, and there are from thirty-two to sixty-seven beds in each. There are nine surgical wards, with from thirty-two to fifty-five beds in each.

Especial observations have been made by the authorities as to the relation between mortality and air-space in the wards, with a view to discover how far overcrowding has been responsible for the large number of deaths. The results proved in a striking manner that where the mortality was large the air-space was small, and *vice versa*.

The total number of beds provided is 794, but these are not on the average all occupied. Provision, however, can be made for 1,500 patients if necessary. The gallery character of the wards is due to the fact that old walls have been removed and brick pillars raised in their stead. The patients lie on straw mattresses; otherwise the beds are of iron and quite as in Spain. The floors are partly of tiles and partly of deal boards, over which sand is strewn daily. The lower portions of the walls are also covered with tiles.

Each ward has a head nurse, who is answerable for its management, and is required to keep a register. There are from two to four other attendants and one or two ward servants. Each sick-room has a doctor in charge, or where very large there may be two physicians or surgeons.

Cases admitted during the day are all seen between the hours of 8 and 10 P.M. by a special doctor, who is entitled to make such changes in what has been done during the day as may seem to him to be proper. The "medico al banco" (or surgeon for the day) attends to any eventualities during the twenty-four hours.

Anyone aspiring to become a doctor in charge must pass an

examination before a commission, whereupon he receives a Royal certificate as "aspirant," which admits him to the hospital where he can fill a vacancy as it occurs.

The medical school is connected with the hospital, and there is also a lying-in institution, which is maintained out of the funds of the hospital but is not well equipped. There is also an asylum with accommodation for 350 patients.

It has been proposed to build a new hospital in a better situation, with a more regular division of wards, and better arrangements for warming, ventilation, and lighting.

THE CHILDREN'S HOSPITAL, LISBON.

The Children's Hospital in Lisbon, built about twenty-five years ago, is an example of the pavilion system in its most classical form, and is, perhaps, more suitable for ordinary patients than for children. Around a central court are grouped buildings of one and two stories. Running east and west, and quite symmetrical, are the two pavilions of two stories each, making four wards of thirty-two beds each. There are further, on the ground floor, four small wards of four beds each. The entire accommodation consists of 160 beds. In the front is the administrative block, with thirteen cubicles for nurses, and in the rear is the chapel. On the ground floor there is an ante-room and out-patient room. Each of the pavilions has a lift, and rooms for a head nurse and two day nurses. The mortuary is located at a distance of twenty yards from the main establishment, and gardens extend north of the buildings.

PROVISIONAL OR EPIDEMIC HOSPITALS.

During an epidemic of yellow fever, it is usual to erect provisional hospitals. On the occasion of one such outbreak the following establishments were called into activity : Santa Anna, in which were treated 31 patients ; Santa Clara, 57 patients ; Rilhafolles, 36 patients ; Lozos, 49 patients ; and Desterro, 323 patients,—all of them being under the administration of the Hospital of San José.

MINOR HOSPITALS AND INSTITUTIONS.

The Hospital of San Lazaro in Lisbon is under the same management as the Hospital of San José, and is now reserved for cutaneous diseases.

The Hospital de Estrillinha, formerly a Benedictine convent, is now altogether reserved for sick soldiers.

The building now used for the accommodation of sick sailors formerly belonged to the Jesuits, having been given up to its present uses in 1797. Though there is room for 400 patients, 150 is the average number of inmates. It is located in the south end of the town, with a separate department for venereal diseases, and a good dispensary. The Minister of Marine has the entire control.

There are also the following charitable institutions devoted to similar functions:—the Infirmaries of Amirante, with 26 beds; Pava de Varzim, with 70 beds; Villa do Conde, with 31 beds; Azurara, with 4 beds; and Penafiel, with 18 beds. In the town of Oporto there are the Infirmary or Royal Hospital of Santo Antonio, with 483 beds; the Hospital of Carmo, with 62 beds; the Hospital of San Francisco, with 87 beds; the Hospital of the Trinity, with 23 beds; and the Charity Hospital, with 30 beds.

A patient who is attended at his own home is allowed 10½*d.* per diem, or, if a chronic case, 6¼*d.* per diem, during his illness.

The Royal Hospital of Santo Antonio is under the same management as the workhouse, each of the directors taking control for a month. The wards are well ventilated, and contain from 400 to 500 patients.

Various "Irmandades" or brotherhoods have their own special and private hospitals, where members are received on payment of a sum of four or six sovereigns.

The Hospital of Santa Anna in Lisbon, among others, is nursed by the Sisters of St. Vincent-de-Paul.

PORTUGUESE HOSPITAL, MADEIRA.

The Princess Doña Maria Amelia founded at Funchal, in Madeira, a hospital which would serve for the collection of observations and the treatment of twenty-four cases of phthisis and pulmonary disorders. In the first instance the King gave a building. Besides residents in Madeira who might not wish to enter a general hospital, cases were admitted whom the august foundress might nominate. The administration was placed in the hands of a commission subordinate to Her Majesty, and included five members nominated by herself. The president, treasurer, and secretary were chosen from the members, and exercised a general control.

HOSPITALS IN PORTUGUESE COLONIES.

In the widely extended, though now much contracted, colonial empire of Portugal, there is a fairly efficient service of hospitals, mainly, however, for invalid soldiers.

Of the patients treated in the Cape de Verde Hospital, in the town of Praia, in a recent year there were :—(a.) *Men's Hospital* : remaining from the previous year, 11 ; admitted during the year, 205 ; discharged cured, 189 ; discharged improved, 17 ; remaining under treatment at close of year, 10. (b.) *Women's Hospital* : Remaining from previous year, 12 ; admitted during the year, 185 ; discharged cured, 172 ; discharged improved, 13 ; remaining under treatment, 12.

Neither the island of Santo Antonio nor that of St. Vincent has any hospital properly so called.

On the island of the Boa Vista there are no hospitals, but the municipality grants assistance to the needy as required.

In Portuguese Guinea the civil and military hospital of Bissao is far from satisfying requirements.

The following is the return for the civil and military hospital of Mozambique, as regards a recent year :—Patients remaining from previous year, 24 ; admitted during the year, 1,021 ; discharged cured, 862 ; discharged improved, 88 ; discharged unimproved, 21 ; died, 45 ; remaining under treatment at close of year, 29.

For New Goa the return was :—Patients remaining from previous year, 34 ; admitted during the year, 2,040 ; discharged cured, 2,010 ; died, 38 ; remaining in hospital at close of year, 26.

For the regimental hospital of Daman the figures are :—Patients remaining from previous year, 1 ; admitted during the year, 295 ; discharged cured, 291 ; died, 1 ; remaining in hospital at close of year, 4.

For the regimental hospital of Diu the return was :—Patients remaining from previous year, 1 ; admitted during the year, 131 ; discharged cured, 127 ; died, 5 ; remaining in hospital at close of year, 0.

For the infirmary hospital in New Goa the figures are :—Patients remaining from previous year, 30 ; admitted during the year, 1,495 ; discharged cured, 1,456 ; died, 44 ; remaining at close of year in hospital, 25.

In Macao there are three hospitals—the military hospital of

Santo Januario, which was opened in 1874, the hospital of San Rafael, which forms part of the workhouse, and the Chinese hospital. The latter institution is erected upon a site granted by the Government, and a principal part of the site is occupied by a pagoda containing receiving rooms and meeting rooms, two lodgings for employés, a dispensary, walks, and garden. The establishment, which cost upwards of £350, was opened in 1873, and admits patients, not only from Macao but also from other parts of China and from other countries as well. It is administered by a committee of twelve Chinese merchants. There are three pavilions, two being for men and one for women. A corridor having ten small apartments on each side runs down the centre. Accommodation is reserved for insane patients. Cooking is done in certain of the small apartments of each pavilion, a special kitchen being provided for the servants. There is a dispensary in connection with the institution, and also accommodation for vaccinating. The authorities say, as the English authorities say of the hospital in Hong Kong :—"This institution at present hardly deserves the name of hospital. It does good service as a refuge for destitute natives ; and in time, when the inveterate dislike to European improvement is overcome, it may do much more good than it can do now." A recent annual report showed that there were remaining in the hospital from the preceding year 16 patients ; 117 were admitted during the year, 96 were discharged cured or improved, 31 died, and 6 remained in the hospital at the close of the year.





CHAPTER XXV.

RUSSIA.



NO definite hospital system existed in Russia until the establishment of the Boards of Charity in the year 1775. Before that date the care of the sick poor was in the hands of the town authorities, and in the country the landed proprietors and village local chiefs looked after the sick. Institutions known as houses of charity were to be met with here and there, but they were intended for the reception of the poor and aged ; they were, in fact, poor-houses rather than hospitals proper. Religious societies have never taken part in the care of the sick in Russia. It was only during the reign of Peter the Great that the importance of medical science began to be recognised, and medical aid to be placed on a more formal basis. That monarch caused many of the vacated monasteries to be converted into hospitals, but this step was really to the prejudice of the public, as henceforward these buildings were resorted to by military patients only. Peter the Great founded in Moscow a hospital which at that time was regarded as very magnificent, and is still one of the best in Russia. It is now used as a military hospital. It was also used as a medical academy in conjunction with four other general hospitals which were established for the care of military patients.

In 1775 Catherine II. instituted boards of charity, one of which was formed in connection with each provincial or local government. These local boards were charged with the supervision of all educational and charitable works. A sum of 15,000 roubles annually was contributed by the Government to each board, but the revenues

of all charitable institutions were greatly increased by the generosity of the Empress, whose benevolent example was followed by many wealthy persons. The charity boards were permitted to lend the sums at their disposal at interest to persons residing under their respective governments. Many of these boards, which numbered originally fifty-four, existed until 1860; but several of them were abolished in the reign of Nicholas I., owing to the unsatisfactory character of their administrative system, and boards of trustees, under the supervision of Marie Theodora, the mother of Nicholas I., were established in their place. In 1860 a decree was passed transferring the system of loans to the Minister of Finance, thus cutting off the principal revenue of the hospitals. The charity boards could no longer maintain the institutions independently, and in 1870 the Government decided to transfer the management of the institutions to municipal and county direction, delivering to the new authorities all funds and properties appertaining to the respective establishments. The boards of St. Petersburg, Moscow, and Odessa continued to maintain their independence for some time longer, in accordance with an article in the code of 1831, referring especially to these cities. In 1884, however, the board of trustees of St. Petersburg decided to place the management of the hospitals in the hands of the committee of public health, whom they requested to institute an inquiry into the sanitary condition of the institutions, with a view to the final transfer of the whole of the hospitals to the town council of St. Petersburg.

The entire hospital system in Russia is now under the control of the State and the municipal corporations, with the exception of such hospitals as have been founded privately and those which are managed by the Society of the Red Cross. The latter especially are protected and assisted by the Imperial family. If a municipality has no hospital of its own it contributes to that of a neighbouring township to which it sends its patients, on a plan similar to that which prevails in certain places in England under the English poor-law system.

The State control is concentrated in the Ministry of the Interior, and medical inspectors and medical officers are appointed by the Government for each town and province. These medical men are all remunerated by the State, and so are the majority of those holding hospital appointments. The State doctors may be rewarded with promotion, decoration and titles. The household management of the hospitals is vested in a lay superintendent, who

frequently holds some other appointment. The system works badly, as the superintendent is usually ignorant of sanitary science, and the medical officer has neither influence nor authority in the general administration of the hospital. This fault in the system is especially noticeable in the military hospitals. There are, however, exceptions to this rule: the superintendent of the Kiev Hospital, for example, being a medical man, and having entire control.

Hospitals for all kinds of special diseases exist in Russia, including numerous private institutions administered by medical men. In many of the general hospitals the pay system exists, the rates of payment varying according to the patients' means. The very poor are admitted free, and in the large towns a tax towards the support of the hospitals is levied on the working classes and on domestic servants, who are thus entitled to gratuitous treatment. In the out-patients' departments the pay system is strictly enforced, as the rules provide that no patient shall receive free medical relief without production of a certificate of insolvency.

Until 1882 special hospitals for infectious diseases seem to have been unknown in Russia, but special isolation wards had been set apart in the more modern general hospitals. In 1882 the Alexander Barrack Hospital was established as an epidemic hospital, and was constructed on the most modern scientific principles.

Efforts have been made of late years to bring the more recently constructed hospitals to a higher level of efficiency by planning them after the best European types. The results achieved in the case of the children's hospitals in St. Petersburg and Moscow especially, and of the hospitals at Kiev and Riga, and the military hospital at Odessa, must be regarded as successful. The pavilion plan has been generally adopted. The only special characteristics of the Russian hospitals result from the severity of the climate, which entails a rather elaborate system of ventilation owing to the necessity of introducing during the winter months fresh air which has been previously warmed and moistened.

THE NURSING SYSTEM.

The nurses now employed in Russian hospitals are of both sexes. Formerly male nurses were chiefly employed, but as they proved unsatisfactory their numbers have been greatly reduced in recent years. The nurses are either engaged and paid by the hospitals, or are provided by the Society of the Red Cross, which then receives

payment from the hospital authorities. Of late years the large town hospitals and the military hospitals have had all their nurses supplied by the Red Cross Society. The sisters belong to the lower classes, but are well taught theoretically and practically in nursing schools attached to the hospitals. The Red Cross Society is a semi-religious body, but the sisters are not bound by vows for life.

MEDICAL SCHOOLS.

The medical schools in Russia have not the same position as in England. Each one is affiliated to some university, and is under the control of the Minister of Public Instruction. The professors use any hospital they choose for the purposes of instruction. Peter the Great's scheme of medical schools in connection with the general hospitals, only survives in the Military Academy of St. Petersburg, which itself differs from the other medical faculties in being under the control of the War Minister.

ST. PETERSBURG.

There are forty-five hospitals in St. Petersburg, besides a large number of private institutions. These hospitals may be divided into three groups—general, military and special. There are eighteen general, five military, and eighteen special hospitals.

The following are the larger *general* hospitals of St. Petersburg :—

The Memorial Hospital to the Empress Marie Alexandrowna, belonging to the Red Cross Society, is a general hospital for both sexes and contains 116 beds.

The Alexander Memorial Hospital, for the working classes, has 600 beds.

The Mary Hospital for the Poor is a general hospital for both sexes with 541 beds. It contains special wards for the treatment of gangrene. There are twenty-eight single rooms for paying patients.

The Peter-Paul Hospital is for both sexes and contains 400 beds, 147 of which are retained for lock cases.

The *military* hospitals include the following :—

The Military Hospital of Baronet Wylie is a general hospital with 150 beds.

The Nicholas Military Hospital has 1,500 beds, and the

Semenow Alexander Military Hospital contains 400 beds for the treatment of private soldiers.

The following are the most important of the *special* hospitals :—

The Hospital for Skin Diseases is for both sexes and contains 68 beds. It is more especially reserved for small-pox and scarlet fever cases.

The Hospital on the Great Ochta contains 250 beds for male lock cases.

The Hospital on the Little Ochta has 220 beds, for the treatment of the diseases of women, and it also receives mental and chronic cases.

The Kalinkin Hospital contains 440 beds, 420 being reserved for female syphilitic cases, ten for lying-in patients and ten for children.

The Lying-in Hospital contains 110 beds, and is free to all patients except those occupying single rooms, who pay 40 to 60 roubles per month each.

The Prince Peter of Oldenburg Children's Hospital contains 250 beds, twenty-five of which are for infants who may be accompanied by their mothers, and twenty-five for infectious cases. It was built in 1864, and has altogether fifty-seven wards.

The Nicholas Children's Hospital contains 110 beds for epidemic and other diseases. A fee of 10 roubles per month is charged.

The Elizabeth Children's Hospital has 100 free beds.

Besides these hospitals there are three others specially connected with the State, viz. :—

The Kalinkin Marine Hospital, which contains 300 beds, and to which the public are admitted on payment of 18 roubles monthly ; the *State Prisoners' Hospital*, with 100 beds ; and the *St. Petersburg Prisoners' Hospital*, which contains 250 beds.

The Oboukhowski Hospital.

This is one of the first general hospitals of which we have any record in Russia. It has gone through all the changes attendant on the alterations of various systems of hospital management in the country. It was established in 1780, and then consisted of six small wooden houses containing sixty beds. The name of the founder is unknown. In 1781 the number of beds was increased to 100, but further accommodation being required, a stone building was erected in 1784. This was built on the plan of the

Allgemeine Krankenhaus at Vienna, in the form of a T. The building was of two stories, and contained 300 beds, forty-four of which were reserved for lunatics. A building was also erected in the courtyard for prisoners who had to undertake all the hard work of the hospital. To prevent their escape, a guard of soldiers was always stationed in the courtyard. The hospital was under the jurisdiction of a charitable board, which mismanaged and neglected it until 1828, when the Emperor Nicholas I. removed it from the care of the board into the hands of a board of trustees, under the supervision of his mother, Marie Theodora. The hospital benefited in every way by the change. The house of correction was removed, and a school of assistant surgeons was added. In 1840, new buildings were erected, and accommodation for 654 patients was provided. In 1848, the Oboukhowski Hospital received almost half of the whole number of patients admitted into the civil hospitals of St. Petersburg. This caused overcrowding to such an extent that 1,778 deaths occurred out of 3,237 admissions. In 1867, the number of beds was increased to 965.

The hospital has throughout its history suffered from an inadequate income, a misfortune which has more especially been felt in respect to the food provided for the patients, and in the want of proficiency of the staff. On the removal of the prisoners they were replaced by paid servants, but the small wages offered by the institution failed to induce any but the most inefficient to offer their services. Great improvements were, however, effected by Smirnow in 1880, one of the most effective of which was the introduction of the Sisters of the Red Cross as superintendents of the nursing. In 1884, the hospital was placed under municipal management. It has now 715 beds for men, and 250 for women. It has an operating theatre, mortuary, dissecting room, pathological museum, and excellent library attached to it. There is a small school of assistant surgeons, and a lecture-room on the women's side which is reserved for clinical lectures for the assistant female surgeons who come to the hospital for practical study and experience.

The patients are of three classes, two of which receive gratuitous treatment, and the third makes small payments, of from 3 to 15 roubles per month. The administration of the institution is in the hands of a medical director, the head physician, and a superintendent.

The Staff of the Oboukhowski Hospital, with the respective salaries, is as follows :—

	Roubles per annum			
The chief physician	1,200
The senior house physician	800
The house surgeon	800
Five medical clerks, each	645
Fourteen junior clerks, each	514
Four female assistants „	360
One prosecutor	560
One head assistant surgeon	300
Twenty-four assistant surgeons, each	120
One head Sister of Charity	300
Twenty-four Sisters of Charity, each	180
One superintendent (women's side)	270
Thirteen ward inspectors	192
Three assistant „	120
One superintendent (male side)	144
One midwife	215
Female nurses, 8 to 9 roubles per month.				
Servants, 9 to 18 roubles per month.				
Store-keepers, 15 to 30 roubles per month.				
One chief dispenser	770
Six assistants, each	480
One clerk	480
Two chemists, each	480
Twenty-one dispensary apprentices, each	120

The average number of servants is one for every ten beds, with one Sister of Charity for every fifty beds. The nurses are untrained, but the Sisters receive two years' training at the military hospitals.

Wards and Beds.—The wards are square or oblong; they are from 12 to 15 feet high, and contain from two to twelve beds in each. Fifteen hundred cubic feet of air-space is allotted to each bed. The windows are not numerous owing to the severity of the climate. The summer barracks are used for the surgical cases, a practice which generally prevails throughout Russia, and which enables the wards to be thoroughly ventilated. The beds have pillows and mattresses, of hay or wool, two coarse linen sheets, a blanket and woollen counterpane.

Ventilation, Heating, Lighting, &c.—In the main building the ventilation is by means of ventilating stoves. In other parts of the establishment it is effected principally by sliding shutters in the

doors. The heating is mainly by fire-places and stoves, but partly by hot water apparatus. The lighting is by means of paraffin lamps. The cooking and washing are by steam, and the kitchen is provided with fifteen large copper boilers.

Diet.—The diet of the patients has always been unsatisfactory. This arises mainly from the fact that the sums provided for the purpose have always been too small. The actual expenditure of the hospital, eighteen kopecks a day per head, has exceeded the sum voted by the municipality, and the various administrations have failed to make good the deficiency. According to the present diet sheet, breakfast consists of a cup of tea and a small loaf of white bread. Dinner consists of soup and a plate of meat. The tea, which is taken at 3.30 P.M., is provided at the patients' expense. Gruel made of semolina is provided for supper, and is much disliked by the patients. The drink is "kvass," a beverage made of rye flour, malt, and the leaves of peppermint, which is fermented.

The Benevolent Society.—This society was formed in 1866, in connection with the Oboukhowski Hospital. It was originally established to assist those patients who left the hospital without means of procuring common necessities, or of paying for their journey home. It provided such persons with clothes and money, and procured renewed passports for them, when necessary. The work of the society has gradually extended since its foundation, and it now has, under its management, a convalescent home, an orphanage, a work-room, and sick relief fund. The Society is conducted by a council. The income during the past year amounted to 139,312 roubles, and the expenditure to 180,200 roubles.

The Hospital Inquiry Office.—This inquiry office was opened to the public in 1867, through the instrumentality of the Duke of Leichtenberg, a member of the board of trustees for hospitals. It was established to prevent the unnecessary applications of patients to hospitals already full, and the transmission of persons suffering from infectious diseases by means of cabs.

The police department was charged with the maintenance of the office, the expenditure being fixed at 4,500 roubles per annum. It was located at the Oboukhowski Hospital, which is centrally situated, four rooms in the main building being set apart for the purpose. The inquiry office is opened each day after noon, that being the hour at which the hospitals cease to admit any but urgent cases, except through the medium of the bureau. The number of vacant beds at each hospital is telegraphed to the office, which is in

telegraphic communication with all the hospitals and police stations. At any of these latter stations, patients may apply for information when unable to attend at the central office. When no hospital accommodation is available, applicants are furnished with a ticket, which entitles them to treatment in their own houses by the municipal doctors. The out-door staff consists of four doctors, two assistant surgeons, two nurses, a secretary, a telegraphist, and three servants.

The Alexander Barrack Hospital.

No hospital for the treatment of epidemic diseases existed in St. Petersburg up to the year 1882. Previous to that date, the civil hospitals were periodically crowded with sufferers from infectious diseases, whilst temporary buildings were erected at great cost to meet the exigencies of an epidemic. In 1880, the town council and the sanitary commission first considered a scheme for the erection of permanent buildings for the treatment of infectious diseases, which resulted in the establishment of the Alexander Barrack Hospital. The institution was built on an area of 980,000 square feet, at a cost of 348,544 roubles. With the exception of the bath and disinfecting rooms, which are of brick, the buildings are of wood, the foundations in some cases being of stone. The hospital consists of twenty barracks, eighteen of which contain one ward each with twelve beds. Two larger buildings contain forty-four beds for convalescents, with a recreation room adjoining for the use of patients during the day. Each barrack is provided with a room for an attendant, a pantry, a linen cupboard, a bath-room, and latrines. The hospital possesses a mortuary, dissecting room, chapel, library, and lecture-room. Lectures are given by the senior medical officers, and the clinical records, edited by the staff, are published annually. The hospital contains 300 beds, 240 being for men and 60 for women. During an outbreak of diphtheria and scarlet fever a separate pavilion was erected, containing thirty beds for children. The hospital is fitted with all modern appliances, and the reception room and dispensary are in telephonic communication with all parts of the building. An excellent system of disinfection in a separate building has been established in connection with the hospital, which is free to all municipal and charitable institutions, and can also be used by private persons at a small cost. The hospital is provided with an ambulance carriage. The total expenditure per annum for the hospital amounts to 124,351 roubles.

Administration and Staff.—The Alexander Hospital is under

the immediate control of a curator, one chief physician, and a superintendent. These officials meet once a week to regulate the affairs of the hospital, over which they exercise entire control.

The staff is divided into two departments, the medical and the household. The medical department consists of the chief physician, two senior house-physicians, four junior physicians, the prosector, three assistant surgeons, four female surgeons, a superintendent, a head sister, twenty other sisters and thirty-four nurses. Besides these, there are thirty supernumerary doctors who receive no salaries, but give their services in exchange for the experience they gain by practice in the hospital. The household department consists of a superintendent, a book-keeper, a secretary, two clerks, a steward, a matron, a storekeeper, and servants. All the staff, and the majority of the medical attendants, have quarters provided for them in an administrative block specially built for their accommodation. The majority of the officials are rather better paid than at the Oboukhowski and some other Russian hospitals.

Wards and Beds.—The wards for the reception of the sick are eighteen in number (one in each barrack), and contain twelve beds in each. They are 98 feet long, 28 feet wide, and 21 feet in height. The floors are vaulted and coated with asphalt and cement. Each ward contains ten windows and two sky-lights, the latter serving also for purposes of ventilation. The bedsteads are of iron, with wire spring-mattresses. The mattresses and pillows are usually of straw, but horse-hair mattresses are provided for very serious cases.

Ventilation and Heating.—There are ventilating shafts entering the roof of the barracks, and sky-lights which can be opened at pleasure. The stores are also furnished with ventilating apparatus. The fresh air introduced is warmed by a special arrangement in connection with the stoves. The wards are heated by means of four stoves in each.

Farm Buildings.—There is a farm in connection with the establishment, and a brewery for the manufacture of "kvass." Wine, brandy, beer, &c., are provided by the town.

MOSCOW.

There are seven large general hospitals in Moscow, and two for children, in addition to military hospitals and smaller hospitals for the special treatment of various forms of disease. The larger general

hospitals contain special departments, each having a certain number of beds for the treatment of cases of special diseases.

The following are the seven large general hospitals :—

The Town Hospital, with 450 beds, receives patients sent to it by the State and municipality, and has also a home for incurables adjoining it.

The Second Town Hospital is for the poor, and contains 252 beds.

The Galizinski Hospital contains 130 beds, five being reserved for lying-in cases, and five for diseases of women.

The Imperial Katherine Hospital has 220 beds, and is for both sexes. The medical officers of this hospital are the clinical professors of the University.

The Marie Hospital for the poor has 252 beds. This hospital has a home for incurables with twelve beds connected with it.

The Paul's Hospital is free, and contains 177 beds for both sexes.

The Hospital for the Working Classes has 825 beds, and is divided into four departments. There is a school for midwives connected with this hospital.

The children's hospitals are :—

The Children's Town Hospital, with 180 free beds, and single rooms for patients paying 40 roubles monthly ;

The Children's Hospital, with 100 free beds ; and—

St. Olga Hospital for Children, one of the most complete and best managed children's hospitals in the world.

The Marie Hospital.

The Moscow Marie Hospital was constructed on the initiative of the Empress Marie Fedorowna of Russia, who named it "The Hospital for the Poor," and it was opened in the year 1805. After the death of its august founder, it was designated, by the will of the Emperor Nicholas I., the "Marie Hospital." The institution is situated in the north-western part of Moscow, in a sparsely populated locality. Opposite the hospital building is a large plot of land belonging to it, and devoted to market-gardening ; in the rear of the hospital is a large shady garden ; on the western side it abuts on the Alexander Institute ; and on the eastern side is a large plot of land covered by various buildings.

The hospital consists of the following buildings :—

- (1) The main building, comprising the hospital.

- (2) A wing occupied by the patients in summer.
- (3) *Baraques* for infectious diseases.
- (4) A building containing the chapel and the anatomical mortuary.
- (5) Four buildings representing the dispensary, section for out-door patients, the Alexander Asylum for Incurables, and the lodgings for the servants of the hospital.
- (6) Three other structures.

The Main Building.—The hospital itself is a three-storied stone structure, the façade facing the south. There is a central corridor in each of the stories. The lower story contains thirty-one wards, with 242 beds for free patients, and sixteen single wards in which patients pay a fee of 50 roubles. The upper story comprises (*a*) a medical section for men, and (*b*) a medical section for women, each containing five wards and fifty beds. There is a department for paying patients, the male section of which contains eight rooms with one bed in each, and there is the same number of rooms and beds in the female section.

The male surgical department consists of ten wards, containing forty-nine beds, whilst the female surgical department contains five wards, with twenty-seven beds; making in all fifteen surgical wards with seventy-six beds.

There is a gynæcological section with five wards, containing twenty-six beds, and a section for nervous diseases. There is also set apart for electric treatment by constant and inductive current a ward on the male side with eight beds, and another on the female side with a similar number of beds. There are also three separate departments:—(1) for diseases of the larynx; (2) for treatment by static electricity, and (3) for massage. There are bath-rooms and all usual offices.

The walls and ceilings of most of the premises of the main building are painted with oil paint, and the floors are of asphalt. The corridors have a stone flooring, covered with oil paint.

The quantity of air-space to each patient in the various wards in the main building is $3\frac{1}{2}$ to $4\frac{1}{2}$ cubic fathoms, and in the section occupied by the paying patients from 6 to 8 cubic fathoms. There are 98,348 cubic fathoms of air in all the wards.

The Summer Premises, constructed in 1835, is a one-story wooden building with a stone foundation, and contains fourteen wards, seven being for females and seven for males. These wards

can accommodate from 120 to 146 patients. The air-space in the wards of this building is from $3\frac{1}{2}$ to 4 fathoms to each patient, the total quantity being 46,436 cubic fathoms.

The *Baraque* for infectious diseases was opened in 1887, and is constructed of wood, with side corridors. It contains ten wards with sixteen beds, but its dimensions are such that it is capable in case of necessity of accommodating thirty-two patients. The quantity of air-space in the baraque is upwards of five cubic fathoms per patient.

Lighting, Heating, and Ventilation.—The hospital is lighted by means of kerosene lamps. The heating is effected by Dutch stoves, and in the main building partly by Russian stoves. There is no proper system of ventilation, but fresh air is conveyed into the main building by means of metallic pipes. In every ward there is a pipe of this description, $1\frac{1}{2}$ inch in diameter, and in the larger wards there are two pipes which enter the wards near the floor, and open near the ceiling, so that even in cold weather the air passing through them has time to become warm before issuing into the wards. Moreover, fresh air is admitted by means of casements in the windows, and vitiated air is carried off by grates and dampers fixed in the stoves.

The ventilation in the summer hospital and in the baraque for contagious diseases is effected only by grates and dampers fixed in the stoves.

Disinfection.—In view of the insufficient ventilation and also for other reasons, a thorough cleansing and disinfection of the wards is effected not less frequently than twice during the winter, whilst the walls, ceilings, and floors are washed with a 5 per cent. solution of carbolic acid. The walls are washed once a month during the winter season, the ceiling and walls once a year before the removal of the patients from their summer quarters, and the floor not less than twice a week. It is proposed to devise means for the more frequent washing of the walls and ceilings.

The atmosphere in the wards is purified (as far as is possible) by the pulverisation of turpentine four times during the twenty-four hours, and by the exhalation of disinfecting vapour from specially prepared vessels placed on the window-ledges of the wards.

The furniture—that is to say, the tables, chairs, beds, &c.—is washed with a solution of carbolic acid once a week or once a fortnight. The hospital linen when discarded by the patients is

sprinkled with a 10 per cent. solution of carbolic acid or some other disinfectant, is then placed in metallic buckets with lids, and taken out of the wards to a particular building, where it is exposed to the air before being sent to the laundry.

Drainage.—Excremental matters are carted out of the town by contractors, whilst the foul water from the bath-rooms in the main building is discharged into specially constructed cesspools.

Precautions against Fire.—All the buildings of the hospital are supplied with iron ladders for use in case of fire. Three water-barrels and a hand fire-engine on wheels are also kept in readiness.

Beds, Furniture.—The beds are of iron, and the furniture is of wood. On the beds are two mattresses, one being of straw and the other of horse-hair.

The Operating Theatre.—The operating room is situated in the hospital building at the end of a corridor. There is an abundance of light, which is assisted by the circumstance that the ceiling and walls of this room are painted with white oil paint. There are two operating tables. Suspended from the walls of the theatre, and having india-rubber piping attached, are four metallic reservoirs, containing a 2½ per cent. solution of carbolic acid for cleansing the operating tables and for the purposes of operations. There are also two glass reservoirs with india-rubber piping, which hold a solution of corrosive sublimate (one part of sublimate to one thousand parts of water), and a Lister's Steam Pulveriser. The tables are marble-topped. The floor of the operating-room is of asphalt, coated with oil paint. The room is disinfected by pulverisation of a solution of carbolic acid, and afterwards of turpentine; the operating-tables, chairs, and floor are washed with a solution of carbolic acid both before and after an operation. During certain serious operations, such as ovariectomy, Lister's Pulveriser is brought into action.

The *Reception Ward* is situated at the entrance to the hospital, and has a separate door. It consists of one large waiting-room, and has the usual offices adjoining. The reception room is disinfected three times a day, and all furniture is washed with a disinfectant. The clothes of patients suffering from certain diseases are burnt.

The Out-Patients' Department.—The section for out-door patients consists of two halls where patients wait their turn, and two consulting rooms, one being for special examinations. There are no appli-

ances as yet for the treatment of out-door patients by means of electricity, massage, &c.

The Anatomical Room is at some distance from the main building. In the same block are a chapel, a dissecting room, a pathological cabinet, and tables for effecting autopsies.

In the institution the Marie Charitable Society hold meetings, and classes are held for the training of female dressers. There is also a library for the use of the patients and servants.

General Remarks.—Generally speaking the hospital is well provided with all the necessary medical appliances, &c., and also with books and journals, and the stock is gradually increased as the resources of the hospital permit. All the officials, with the exception of those who do not wish to live on the premises, are provided with lodgings in the four wings of the buildings, as are also the servants and ward-attendants.

The Marie Charitable Society.

Connected with the Marie Hospital is the Marie Charitable Society, which was founded in 1875. Its objects are—firstly, to accord, as far as its means will allow, all kind of aid and assistance to indigent persons who are being treated in the hospital or are leaving the institution, and to extend succour to the families of such persons; secondly, to maintain the Alexander Institute for Incurables (six women and six men) who are found to be incurable after entering the hospital; and thirdly, to support four aged patients from the hospital (two women and two men) in various almshouses, and to maintain in schools and asylums six orphans (three of each sex), whose parents have died in the hospital.

Medical School.

A school for female dressers was founded in 1878, the aim of the institution being to prepare women for executing the duties of dressers. The number of students in the school is about thirty. The curriculum is fixed at two years, and is divided into four semesters. The school is under the chief control of the honorary curator, who is the director of the hospital. It is likewise under the supervision of the medical inspector of the institution named after the Empress Marie, but its direct management is entrusted to the head physician of the Marie Hospital.

The tuition of the students is superintended by the doctor and dispenser of the Marie Hospital, who are appointed by the head physician

The Moscow Foundling Hospital.

The Moscow Foundling Hospital, which was established in 1763 by Catherine II. of Russia, is the largest institution of the kind in the world. The principal building consists of two enormous blocks five stories high, connected with each other. The main building contains some wards, the chapel, and the administration department. The other block is occupied by the servants of the establishment, the kitchens, the Saint Nicholas Institute, the vaccination department, the bacteriological laboratory, the archive room, a reception room, and wards. The entire buildings in connection with the Foundling Hospital cover an area of 82,800 square metres, and the inmates number 7,000 persons. Besides the establishment for the reception of infant foundlings, there is the Saint Nicholas Institute, containing 700 pupils, and accommodating 100 superintendents, 200 nurses, and 500 class directors. This Institute is a female orphanage for the children of Government officials, principally officers in the army. The children are educated as governesses and school teachers, and are required to devote six years' service to the Crown, for which they receive small salaries. No foundlings are admitted, and fifty paying pupils are received.

There are also—a hospital with 120 beds for the treatment of adult foundlings, wet nurses, and servants of the institution; a lying-in establishment in which as many as 6,000 births take place annually, and to which is joined an institute where 250 midwives are trained; a dispensary which supplies medical and surgical appliances for the institution, for 800 out-patients, for four infirmaries in village districts, and for the district doctors in connection with the Foundling Hospital; a vaccination department in which about 15,000 infants belonging to the establishment and 11,000 out-patients are vaccinated, and 300 army conscripts are re-vaccinated annually. There is an anatomical theatre in which post-mortem examinations are made of the bodies of infants and women dying in the lying-in department, and connected with this department is a museum containing 3,000 pathological specimens.

There is a steam laundry in which forty-four women are constantly occupied, and where 2,000 kilogrammes of children's linen are washed daily. The children are supplied with 1,500,000 changes of linen. There are disinfecting rooms, and a steam pump which supplies the whole hospital with water from the Moscow river.

An infirmary of thirty beds is set apart for the pupils of the

Saint Nicholas Institute, and there are nine temporary barracks in the garden for summer use, and four of stone, heated by steam, for use in winter. The hospital contains three lecture-rooms in which professors of the University lecture to students on material supplied by the hospital.

Besides these establishments directly in connection with the institution, there are forty-two schools maintained by it for the education of the foundlings in the provinces, and four hospitals and twenty-five dispensaries, besides inspectors who attend to the well-being of the foundlings in the districts.

The total expenditure for the hospital is 1,800,000 roubles per annum. Of this sum, 1,000,000 is contributed by the State, a revenue principally derived from a monopoly of the sale of playing-cards.

The hospital was originally intended for the reception of illegitimate children only, but as a matter of fact the institution has now a much wider sphere, as many as 200 legitimate children being annually received whose mothers are neither able to nurse them nor to afford wet-nurses for them. These children are vaccinated and maintained in the country for one year. A large number of poor people send, as illegitimate, children who are not really so. These frequently arrive by rail, packed together and in a state of starvation and exhaustion.

The name and full particulars of each child are entered in the register on its admission, and a number is allotted to it. This number is affixed to a bone label which is hung round the child's neck. A receipt bearing the number of the child is given to the bearer of the child, so that it can always be traced by inquiry at the office of the establishment. The weight, measurement, and particulars of progress are systematically recorded. The average number of infants received daily amounts to 45. This number increases yearly, and during the last year of which we have particulars it reached 17,000. Of all the children entering, 78 per cent. are newly-born, 20 per cent. are already diseased, 27 per cent. are of feeble constitution and under the average weight, 5 per cent. are very feeble, 4 per cent. are *præmaturi*, and 4 per cent. are syphilitic. Out of these diseased and sickly children at least a hundred die during each year and within a few hours of their admission. Nearly half the number of infants are born in Moscow, 20 per cent. come from towns and villages in the province of Moscow, and the remaining 30 per cent. come from the other provinces, sometimes a distance of 100 versts

and often 1,000 versts by rail. If they have not been already baptized they are christened soon after admission, and are generally named after the patron saint of the day. Healthy infants remain in the suckling section not longer than two weeks in summer, and three in winter. After vaccination they are sent into the country. Sick children only are retained more than six weeks, or until recovery. The children destined for the country are assembled in one section of the establishment, and are thence given into the charge of the village wet-nurses who desire to rear them with their own family. The number of children consigned to the care of foster-parents amounts to 12,000 per annum. This number is distributed over 5,000 villages situated in five provinces. The payment to foster-parents for rearing the children varies from 1 to 3 roubles each a month. The total yearly cost of maintaining the foundlings in the villages amounts to 600,000 roubles. The hospital charges itself with the maintenance of the children until the age of fifteen. The whole number of foundlings of various ages supported by the institution is 43,000. Of these 800 are crippled and receive a life pension. There are 3,000 children from the hospital in Moscow learning trades, and all of these have the right to medical treatment at the Foundling Hospital when necessary.

Wards.—The suckling foundlings are disposed in sixteen sections, arranged on the central corridor system. Eight of these sections serve as infirmaries and eight as healthy wards. They usually accommodate 950 children collectively. The children suffering from contagious diseases are placed in a separate infirmary, situated in another building. When the number of these is very large, the winter barracks are used. The infants' wards are very capacious. They are constructed for the reception of 500 children, but as the number actually accommodated exceeds this considerably, only 977 cubic feet of air-space is available for each child and its nurse. There is abundance of light from thirteen large windows in each ward. The heating is by Dutch stoves, of which there are sixty-five distributed over the sixteen sections. The temperature is maintained at 16° Réaumur in the healthy wards, and at 18° in those for *præmaturi*. There are thirty-one ventilators in these sections. All the ceilings and walls are painted. A radical disinfection of the wards takes place in summer, when all the children are transferred to the barracks. In all the suckling-wards there are metallic baths with hot and cold water laid on, in which the infants are bathed daily. The cots are of metal, with suspended muslin

curtains, and, owing to overcrowding, two children frequently occupy one cot. The bed-linen is changed daily, and the mattresses, which are of straw, are refilled every three months. For the *prématuri* there are 45 special cots in the form of double metallic baths, with hot water between the walls. There is also a Tarmier-Martin cot incubator. Each ward is furnished with metallic drying cupboards.

The Nursing Staff.—The nursing staff of the Foundling Hospital consists of 60 female superintendents, 150 nurses, and 950 wet-nurses who are supplied from villages in the province of Moscow and from the adjacent provinces. There is a daily attendance of women who are desirous of being engaged, and who, when suitable, are entered on the register and provided with clothing belonging to the hospital. The supply of these nurses amounts to about 14,000 annually, a number which falls considerably short of the demand and sometimes necessitates one woman suckling as many as two or three children at a time, besides the feeding of some of the infants on cows' milk from the bottle. The scarcity of nurses occurs principally in those months in which festivals occur, such as Christmas and Easter, and during the summer months when field labour is plentiful. The mortality amongst the infants at such times rises as high as 60 per cent. The mothers of illegitimate children are often engaged, and are permitted to nurse their own infants for the first six weeks of their residence, being at the same time paid half the wages of ordinary wet-nurses. Wet-nurses are paid five roubles per month, and when suckling more than one infant, they receive extra wages and rations. They sleep on mattresses on the floor by the side of their infant charges.

Medical Staff.—The medical staff employed by the Foundling Hospital numbers sixty-eight, forty-three of whom are directly connected with the establishment and the remaining twenty-five act as district doctors. In the suckling infant department there are fourteen resident and six non-resident doctors in constant employment. There are two vaccinators, and two surgeons attached to the anatomical theatre. Three doctors are attached to the infant infectious wards, five resident doctors and ten non-resident doctors are attached to the hospital, and there are in addition six male and four female dressers and a dispenser with two assistants.

Administration.—The administration of the institution is vested in three persons,—the chief physician, who controls the medical department; the director, who takes charge of the economic part of the establishment; and a chief of one of the districts, who manages

the affairs of the hospital in the districts. These three officers form a board, responsible to the honorary curator who is regarded as the head of the hospital, and to the control department of the Institutions of the Empress Marie.

KIEV.

The Alexander Hospital.

This hospital was first opened in 1875 with sixty-five beds. The scheme for its establishment originated amongst some merchants of Kiev, but the plan, when more fully developed, was carried out by the town council. This body supplemented by private subscription the sums collected for the erection of the hospital. With a view to securing the best sanitary and medical conditions for the hospital, all arrangements for the buildings were placed under the superintendence of a medical man, subject to the final approval of the council. The site chosen was a wooded hill, in close proximity to the town, on the south-west side of which terraces were formed and the hospital buildings were erected. The original buildings consisted of three ward pavilions and two administration blocks, one of the latter being of two stories and both being situated on the lowest terrace. The number of pavilions and barracks has since been considerably increased, and there is now accommodation for 260 patients. Further extensions are also in progress. The ground occupied by the hospital was originally a mulberry garden planted by order of Peter the Great. Many of the mulberry trees still remain, and these and other trees of various descriptions shelter the hospital on the north-east side and surround the different buildings. The principal administration block is of such ample dimensions that it will continue to serve its purpose when the hospital extends beyond its present limits.

The buildings for the reception of patients are of various descriptions and dimensions, and differ considerably in their internal arrangements. They are erected in groups. The first group consists of two buildings, a barrack and a pavilion of two stories. The barrack stands on a lower level and consists of one ward and single rooms, with rooms for attendants, recreation, and the usual offices. The pavilion, which is connected with the barrack by a gallery, contains single rooms and small wards for the patients, and rooms and offices as in the other building. Corridors run from end to end of both stories. The warming and ventilation are effected in the same

manner in both buildings, and the same materials have been used in the construction in both cases.

The second group of hospital buildings is formed of two single barracks situated at some distance from the two buildings already described. The first contains a lying-in ward with five beds, and a children's ward with eight beds. The second is for infectious diseases, and is so arranged that one-half of the building can be entirely isolated. Both barracks are built of wood, and are heated and ventilated by means of Dutch stoves.

The third group consists of four barracks situated on the uppermost terrace. These were built during the war in 1877, by the Red Cross Society, and with the consent of the town council. Permission was given to use the kitchen and general offices for these barracks in common with the rest of the hospital. When no longer required for military purposes, they were purchased by the municipality and used to extend the accommodation of the hospital. These barracks were built as speedily and cheaply as possible, but are not perceptibly inferior to the other establishments. The floors have not, however, vaulted foundations, and consequently the wards cannot be warmed and ventilated from below. An equal temperature is not therefore easily maintained.

The fourth group consists of summer barracks, which were also built by the Red Cross Society. They are of two stories, and have gabled roofs of clay covered with straw imbedded in loam and boarded within.

The hospital possesses a mortuary, a chapel, a dissecting room, and a disinfecting chamber which was reconstructed on modern principles in 1880, and is open to the public at a small charge. There is a steam-laundry, and the cooking is done by steam and open fire-places. The diet system for the patients differs from that of other Russian hospitals, being at the discretion of the doctors, subject only to a fixed expenditure per patient per diem of 26 kopecks. The annual sum voted for expenses is in accordance with a budget and estimates based upon the expenditure of the previous year.

Administration and Medical Staff.—The internal management of the hospital is under the sole control of a medical superintendent, who is responsible to a committee consisting of the mayor of Kiev, two members of the town council, and the chief physicians of the hospital.

There are resident doctors and surgeons, each having a depart-

ment under his charge. The consulting physicians are the clinical professors of the university. They may visit the institution whenever they please, but are required by the regulations of the hospital to attend when requested by any of the medical staff to do so. They are permitted to remove any patient with his own consent to their own institution, for the purpose of instruction, and may effect an exchange of patients.

Wards and Nursing.—The wards in the different buildings vary in capacity from one to twenty-six beds. They have an average air-space of 14,000 cubic feet. The windows are double, owing to the severity of the climate. The nursing is undertaken by Sisters of Charity.

Ventilation.—Each group of the hospital buildings employs a method of ventilation and heating different from the other. The most satisfactory is that adopted in the barrack and pavilion mentioned in the first group. The foundations of these buildings are vaulted, and in the arched chambers thus formed is placed heating apparatus, which warms and moistens the fresh air, previous to its introduction into the wards by pressure. The volume of air warmed by the stove passes over a bath, and thence into a reservoir with connecting pipes which conduct it into the wards. This air, entering from inlets in the floor, produces a temperature varying little more than 1° in any part of the wards.

Hot-water pipes run along the outer walls, and warm the air introduced from without. The foul air from these buildings is taken out by means of shafts in the walls, which are carried up some distance outside and are furnished with regulating ventilators. In other parts of the hospital the ventilators are placed in the walls and chimneys. The warming is by stoves, by hot-water pipes, and by flues connected with the stoves and running horizontally along the inner or outer walls of the wards.





CHAPTER XXVI.

SPAIN.

THE HOSPITALS AND HOSPITAL SYSTEM OF THE KINGDOM OF SPAIN.



HOSPITAL organisation appears to have existed in Spain for some time. The Beneficencia Pública embraced in its activity some years ago 1,292 public charitable institutions. These were classified into 7 general, 106 provincial, 868 municipal, and 258 private establishments, in addition to 53 others for affording assistance to the needy in their own homes. The outlay amounted to a sum of £475,000, the income being no more than £250,000, while a sum of £120,000 was set apart for the incidence of famine and other eventualities. The number of patients treated was 170,000, and of individuals succoured at their own homes 714,894.

The returns included 108 bathing and mineral water establishments, 10 lazarettos, 391 mortuaries, 8,595 boards of health, 875 sub-delegates of medicine, surgery, and pharmacy, 6,260 physicians, 6,943 surgeons, 3,775 pharmacists, 1,430 phlebotomists, 250 druggists and herbalists, 507 midwives, 8,911 veterinary surgeons, and 3,647 dispensaries. The Hospital de la Princesa in Madrid was not included in this account, as it had not at that time been established.

The number of hospitals is stated to have been 734, of hospices 73, while the remaining institutions were workhouses, vagrant wards, lying-in establishments, asylums for the insane, foundling homes, hospitals for incurables, convalescents, and persons afflicted

with elephantiasis. A few years later the number of hospitals was returned as 911, and 158 lying-in establishments were enumerated.

There appears to have been 920 Sisters of Mercy, 597 resident nurses, and 30,771 district nurses engaged in the charge of the sick.

In Spain the sick and unfortunate are relieved either by the Government, by the province, by municipalities, by philanthropic associations, or by private individuals; and the hospitals of the country are accordingly to be classed as general, provincial, municipal, or private. Not that they were always so, for the hospitals of Spain are as ancient as they are numerous, some indeed owing their foundation to the Mohammedan conquerors, who were expelled in the year 1492 by Ferdinand and Isabella. But with the lapse of time, political convulsions, and violent and frequent constitutional changes, some have lapsed, many have been united with others, and the majority have passed under other government.

At the time when Philip II. resolved to regulate the hospitals of Madrid by bringing them all under one organisation, in the year 1566, there were in existence three institutions dating back to Moorish times, namely, those of San Gines, Anton Martin, and San Lazaro, in addition to those of Del Campo del Rey, founded in 1486, De la Paz for contagious and incurable cases, the hospital for convalescents, and that of the Passion, founded in 1565 by four pious men, with forty beds, a number, however, which was subsequently increased to 200. In 1567 Pope Pius V. gave his assent to the changes proposed by the famous monarch, but fourteen years passed away before the project was put into execution, and it was only in 1587, the year before the defeat of the Spanish Armada, that all the hospitals mentioned above, with the single exception of that of the Passion, were united into a single general hospital, which was first located at the end of the Calle del Prado (Prado Road) where the convent of Santa Catalina afterwards stood, and where the buildings of that name now stand. A new general hospital was erected in the same locality in 1620, and had the Hospital of the Passion united with it in 1636. The administration was intrusted to a committee of pious and illustrious individuals. The King himself gave it his patronage in the Council of Castile, and one of the ministers belonging to that body was nominated its protector.

The institution had at that time no fixed income, receiving only such moneys as were offered by charitable persons; but in the year 1636 Philip III. gave it a sum of 34,000 ducats and certain dues, an

example which was followed two years later by the council of Madrid, which granted a due of two maravedis on the pound of oil. The latter due was made perpetual in 1666, and the former was likewise perpetuated. In 1692 other dues on sales of flesh, amounting to a maravedi per pound, were also made over to the institution.

The hospital was removed to the Calle de Atocha by Ferdinand VI. in 1748. Its frontage upon that roadway measures 600 Spanish feet, and adjacent are the medical schools of San Carlos, established by Charles II. in 1783. It is a great quadrangular building, very lofty, with four or five stories. In the centre is a large courtyard. The male side and the female side are quite distinct, the latter including some children's wards and two maternity wards. The number of beds in the establishment is about 1,650, though accommodation may be made for 1,800 patients if necessary. The sick wards, which are forty-four in number, vary widely in size, some having room for nearly 100 patients, while there are eleven with from ten to fifteen beds each. The largest wards are those of St. Anthony and St. Joseph containing eighty-seven and seventy-five beds respectively. A monthly return of sick frequenting the establishment, together with its Guadalcazar branch—for the General Hospital of Madrid includes several semi-independent institutions—shows the following figures :—

Remaining in the institution at date of last report	1,418
Admitted since	1,586
Died... ..	222
Cured	1,272
Relieved	175
Actually remaining	1,335

The hospital service is arranged in the following departments : medical, surgical, obstetric, ophthalmic, for the insane, and for persons detained. There is likewise accommodation for paying patients, for persons of high rank, and for others whose illness is of a serious character. Each surgical division has a small room for operations, and another containing a couple of baths and all the requirements of hydropathic treatment. The walls are covered to a height of $6\frac{1}{2}$ feet with a layer of plaster, or with blue Valentia tiles. The floors are for the most part stone, but in certain instances they are of asphalt.

Nursing is conducted by Hospital Sisters among the women and by male attendants among the men. To them is intrusted, besides the duty of watching the sick, the maintenance of order, and the distribution of meals which takes place four times a day. At 5 A.M. there is milk, either goats' or asses'; at 7 A.M. *déjeuner* of chocolate or soup; at 12 noon dinner of beef or fowl bouillon, boiled or roast beef, mutton, boiled or fried egg, potatoes, pudding, wine, biscuits; and finally at 6 P.M. supper with a menu hardly differing from that for dinner. Generally the rations allowed to the sick by the hospital authorities may be classified as follows: (a) full rations, sixteen Castilian ounces of bread, twelve ounces of meat, a pint of wine, one and a half ounce of peas, and an ounce of bacon distributed between dinner and supper; (b) a diet the same as the above with twelve ounces of bread only; (c) medium rations with eight ounces of bread and twelve ounces of meat, a pint of wine, and an amount of peas and bacon as above; (d) medium rations with soup, consisting of eight ounces of bread, four ounces of rice or vermicelli divided between dinner and supper. The breakfast, as a rule, includes a garlic soup with three ounces of bread and a quarter of an ounce of oil, or (if ordered) an ounce of chocolate, or an egg with two or three ounces of bread.

The *medical service* includes a dean and eleven physicians and a dean and eight professors of surgery. Further, each division includes three physicans and three surgeons whose functions are those of the Bureau Central in France; that is to say, they are charged with visiting the sick who seek admission into the hospital. Two of them ought to be constantly on duty in the waiting room to carry assistance wherever needed. The pupils accompany the physicians on their rounds and the surgeons at operations, and see to the preparation of prescriptions and medicines by the two dispensers of the hospital with their assistants and fifteen pupils.

The medicine ordered is administered to patients at three o'clock precisely, and when it is of a dangerous character only at the hands of the principal assistants in medicine and surgery.

However Spaniards may praise their charitable institutions, foreigners visiting the country speak less favourably. An English writer says that the poor dread to approach these establishments, and that the mortality is fearful; an Austrian traveller declares that hospitals in Spain stand far below those of other lands; and an eminent Portuguese doctor, who visited the General Hospital, writes severely, and his words will bear quotation.

"The General Hospital is enormous in size, and admits without distinction patients suffering from every form of disease. There is accommodation for 2,000 sick, and the usual number actually in the institution averages 1,200. From outside the establishment offers little that is imposing, and within it is dark and gloomy. The wards wear a dreary aspect : some contain more than 150* beds. Ventilation is effected by means of apertures in the roof, which serve as outlets for the vitiated air. The winter season may be severely felt, for the rooms contain no stoves. But these defects are small, compared with the condition in which one finds patients, beds, walls, roof, &c., in respect of cleanliness : I frankly say it. I went away so disagreeably impressed with the general condition of uncleanness, that I could indeed scarcely believe that in the present century, and in the kingdom of Spain, such a state of things could exist in one of the principal charitable establishments of the country. Our own hospital of San José—the most important institution of the kind in Lisbon—is by comparison a model establishment ; such defects as there are are capable of easy remedy, and as harmony characterises the relations between administrative and facultative staffs, we are justified in hoping that it may soon become one of the finest institutions belonging to our race. Such a thing as internal regulation does not exist in this General Hospital, nor is the system of attendance either regular or punctual. Sisters of Charity, Spaniards by birth, are intrusted with the nursing on the female side, and men among the males. There are no forms over the beds, and diagnosis, prescription, and diet are entered in a memorandum book. The system is complicated, and very troublesome for nurses : our own way of using forms, whatever its defects, is a thousand times preferable. However, I was much pleased with the excellent quality of the meals provided for patients."

The Hospital of San Juan de Dios, a part of the General Hospital, is in the Calle de Atocha. It was founded in 1552, and has ten wards, six for men with 163 beds, and four for women with 90 beds. It was with this hospital that the two institutions De la Paz and San Lazaro were united, the latter having been used for contagious cases since Mohammedan times, the unbelievers having permitted the erection of hospitals for Christians outside the borough walls. The Society of San Juan de Dios, which in the days of Spanish dominion passed over to South America, continues

* This statement, compared with one already made, must be taken to mean that the visitor arrived at an exceptional period.

in charge of the establishment, performing the duties of superior, doctors, and chaplains. Although these services are rendered in the main gratuitously, certain of the chief attendants on the sick receive an annual salary of £7. The other servants, who include clerks, six inferior attendants, a dispenser, a sister and a porter, receive in some cases wages only, and in others both wages and rations. There are eight clinical clerks and dressers, who are unpaid but who have board in the institution. Without trenching upon the financial considerations, which will be dealt with presently, it remains to be said that the expenses amount to over £2,000, leaving a deficit of £1,350, which, however, is covered by an amount of 8*d.* per day contributed by the Board of Public Charity for each patient who cannot be maintained from the funds of the institution. The chapel, which was originally built in 1552, was rebuilt in 1798.

The Hospital of Incurables of Jesus of Nazareth, No. 11 Calle de Amaniet, dates from 1803. It is really a refuge, containing 106 beds in six wards.

The Inclusa and Colegio de la Paz, originally a convent or fraternity, erected in 1567, is now a foundling institution, and as such merits no further notice in this place.

The Hospital of Our Lady del Buen Suceso, Calle de Alcala 244, dates back to the year 1489, when it was founded by Ferdinand of Aragon and Isabella. Until the time of Charles I. the institution followed the Court, but that monarch established it definitely in Madrid.

The Holy Brotherhood of the Refuge, founded in 1615 by the Society of Jesus for the purpose of distributing alms, administer, under Governmental inspection, two hospitals, one for sick Portuguese, originated by Philip III., the other for Germans, originated by Doña Maria Ana of Austria. Its supplies are made up from city properties, quit-rents, legacies and bequests. The council of the brotherhood consists of thirteen members, a president, vice-president, three councillors, three members of the finance department, two secretaries, and three accountants, one for each department.

The Hospital of St. Peter, for priests, Calle de la Torrecilla No. 7, was founded in 1619, and maintained by the Venerable Congregation of Elders of Madrid, there being no institution specially for sick members of that body. It is under a rector, who belongs to the society, and who manages the establishment through a chaplain-major of his own nomination.

The Hospital of St. Patrick of the Irish, Calle de Toledo No. 120, was founded in 1629.

The following institutions, though termed hospitals, are largely educational :—Our Lady of Montserrat, founded in 1616 for subjects of the Crown of Aragon ; Pontifical and Royal of St. Peter of the Italians, founded in 1598 ; Latina, founded in 1499 with eight or ten beds under a rector ; Saint Louis of the French, founded in 1615 ; Third Order, founded in 1617 for twenty-four aged gentlemen who receive food and clothing from the establishment ; Buena Dicha, founded in 1594 ; Our Lady de la Novena de los Cómicos ; and St. Catalina de los Donados, founded in 1440.

The Women's Hospital, de la Pasion, which, as has been pointed out, was united to the General Hospital, had some 1,400 patients daily, and a body of officials numbering 200 or 300. The establishment included a dispensary, which served also for the institutions for incurables, both male and female, and for the charitable asylums of San Bernardino.

The Hospital of the Princess was founded in 1857 by the ex-Queen Isabella, and is really the only one of these establishments built upon a modern type, being, in fact, similar in design to the Lariboisière Hospital. It is situated on some high ground to the north of Madrid, in the form of an elongated quadrangle running north-west and south-east, and having eight pavilions, four on each side, separated from one another by six lateral courts, and connected by a covered gallery. These have a single story in addition to ground floor, both destined for the reception of the sick. The two pavilions forward and the two behind are united by means of buildings which complete the frontage, the main court being in the centre. The entrance lies to the south-east, where are also offices, common rooms, and the servants' quarters. In the building to the north-east are the dispensary, laundry, baths, instrument room, linen cupboards, water-closets, and wash-houses.

All sick persons are admitted, with the exception of incurables, and those suffering from syphilis, insanity, eruptive fevers, and skin diseases. There are from 300 to 335 beds in seventeen wards, of which sixteen have twenty beds each, and the remaining ward twenty-four beds. The dimensions of these sick rooms are $32\frac{1}{2}$ by $19\frac{1}{2}$ by 13 feet, and the cubic space allowed per patient 780 cubic feet.* In summer only a part of this accommodation is occupied by the sick.

* These numbers, however improbable, are given by Husson.

In admitting patients, surgical sufferers and those with wounds have the preference, while no one is definitely received without the assent of the Board for Public Charity. When a case is grave a special bulletin is issued, which friends come and consult freely.

The Military Hospital of Madrid, originally a school and barracks, was taken over from the Treasury in 1841, and various subsidies, including one of £1,500, given in the same year, were granted by the military authorities. Previously sick soldiers had been divided between the three hospitals of San Juan de Dios, Santa Isabel, and De Saladero. There are twenty-two wards containing altogether less than five hundred beds. The administration is in the hands of a commissary or military inspector, a controller, who is the local *gefe* or chief, a commissary for admissions, and servants. The facultative body, to use a Spanish form of expression, includes a Consultant-in-Chief, a Vice-Consultant, who is the local *gefe* or chief, and nine professors of the first and second orders of the Military Board of Health. Lastly, there are two chaplains and a sacristan. By a regulation of the year 1836 the diet was fixed at 20 Castilian ounces of bread, and 12 Castilian ounces of meat, but with the proviso that 20 ounces of beef might be supplied instead. Wine might be prescribed, divided between dinner and supper. A sum of £1,600, voted for the institution in 1846, has been held back owing to the state of the treasury, and "until that amount is forthcoming, reforms needed to bring the hospital into a condition to compete with the best establishments of a similar kind in foreign countries must be postponed."

Barcelona is rich in both public and private establishments of charity. Belonging to the Board of Public Charity are—the Casa de Caridad, including schools as well as quarters for the sick, who are soon transferred to the Hospital of Santa Cruz; the Casa de Misericordia, or workhouse, founded in 1583; the Convalescent Hospital de San Pablo (1629); an orphanage (1370); the Hospital and Hospice of Santa Marta (1308) for travellers; the Hospital of San Severo (1412) for the infirm and demented; and the Hospital of Santa Cruz itself.

This last-mentioned ancient institution originated in 1229, and in 1401 a number of other similar foundations were united to it; for it is to be noted that a consolidation of the hospitals occurred in Barcelona equally with Madrid, earlier indeed in the former town than in the latter. Every form of disease, every nationality, and both men and women are admitted into this great institution.

The Military Hospital contains 16 wards with 702 beds, and at the date of a recent report there were in it 168 patients suffering from medical, 126 from surgical, 66 from venereal, and 47 from skin disorders. Upon the whole, there were 205,102 days of treatment, which at the rate of 5 reales 6 maravedis each showed a total cost of 1,061,704 reales, or £11,000. This sum was disbursed by the Ministry of War, in default of income belonging to the institution itself.

An interesting feature of Barcelona benevolence are the Montes Pios, corresponding to our own sick-clubs and the German Krankenkassen. The members belong to various societies and crafts, and in case of illness receive from 1s. 3d. to 2s. 6d. per diem sick-money. A list of thirty-nine of these clubs is extant, whose foundation took place between the years 1751 and 1835.

Notable in Bilbao is a hospital of a comparatively modern type. The old establishment, with seventy-five beds, dated from the sixteenth century, but the new buildings were erected between 1817 and 1837 at a cost of £20,000. The pavilions are constructed upon the principles enunciated by Hunter, with four flats, the upper ones for patients giving a service of ten wards and 241 beds. The estimates are detailed as follows:—

Expenditure.

	Thousands of Reals
Maintenance of patients and dependants ...	49
Medicines and dispensary, inclusive of requirements for the workhouse ...	35
Beds, clothes, and kitchen utensils ...	19
Professional staff	17
Male attendants	7
Servants	9
General charges connected with the institution	6
Clerical expenses	10
General and extraordinary outlay ...	38
Total	<u>190</u> = £19,000

Revenue.

Estates and rent	14
Annual subvention of the Ayuntamiento *	50
Sum from a raffle	20
Income from dispensary, donations, &c. ...	67
Total	<u>151</u> = £15,500

* A provincial committee intrusted with the charge of public institutions of charity.

The province of Granada has many public establishments, inclusive of three or four in the town of Granada itself, which unfortunately too often are wanting in funds, as will be seen from the subjoined statement.

Institutions of the Province of Granada.

Town.	Establishment.	Thousands of Reals.	
		Income.	Expenditure.
Granada	Hospital of San Lazaro	13	45
	Hospice, Asylum, and Vagrant Ward	176	272
	Hospital of San Juan de Dios, Civil and Military	376	419
Alhama	Charity Hospital	2	17
Almuñecar	Hospital	7	7
Baza	Hospital	3	3
	Foundling Institution	2	2
Cullar de Baza	Hospital	1	2
Castul	Foundling Institution	3	3
Guadix	Hospital and Foundling Institution	37	49
Huescar	Hospital	14	21
	Hospital for Skin Complaints	6	25
Loja	Hospital	7	5
Monte Frio	Hospital	10	11
Puebla de Don Fadrique	Hospital	4	4
	Other Institutions	85	119
	Totals	743	1,001
	Equal to	£7,500	£10,050

All these institutions are under the administration of the Beneficencia Pública, or Board of Public Charity.

The outlay is divided generally, as has been already explained for Bilbao.

The Hospital of San Juan de Dios, containing 500 beds, is interesting on account of its founder, after whom it has been named. He was born at Montemayor, in Portugal, in 1495, and on coming to Granada was so aroused by discourses of Avila that he gave himself up to works of zeal and charity. He was thought to be mad, and was imprisoned, but, being released, he began to collect alms to found a hospital, and so this institution originated. He died in 1550, was beatified in 1630, and canonised in 1699. Other charitable foundations bearing his name are to be found in Madrid, Cordova, Lucena, Seville, and Rome, as well as in South America.

Other hospitals in Granada are those of Santa Ana (1592); of Corpus Christi (1517), founded by the Brethren of Corpus; of the Caridad and Refugio (1513), originated by two illustrious gentlemen for acute cases, with thirty beds, ruled by a brotherhood who collect and divide their own alms; of San Lazaro, originally for the plague-stricken; of El Real, for the wounded, at first in the Alhambra; and that for Skin Diseases (Tiña) (1658), under a special committee from the Santa Iglesia Cathedral; while several others have ceased to exist.

Most of the sick of the Province of Huesca are sent into the General Hospital of Saragossa.

The following list of institutions in the Province of Seville may prove of interest:—

Hospitals, &c., in Province of Seville.

I.—Provincial.

Town.	Name of Establishment.	Thousands of Reals.		Observations.
		Income.	Expenditure.	
Seville	Foundling Home ...	209	800	—
	Provincial Hospice ...	73	464	—
	Hospital of San Lazaro	30	51	—

II.—Municipal.

Seville	Central Hospital ...	713	713	Hospital of Pozo Santo, though in a different building, is under the same management.
	Vagrant Wards of St. Fern ...	—	323	
Alanis	Charity Hospital ...	3	3	—
Alcalade	Hosp. of San Ildefonso	6	6	In part in possession of revenues belonging to suppressed institutions.
Guadaira	Brotherhood of Mercy	1	1	
	Seventeen other establishments in fourteen other towns ...	195	208	—
		1,230	2,569	

In 1849 a series of seventeen institutions, in twelve towns, with an annual income of 43,000 reals, and an expenditure of 268,000 reals, were suppressed, their revenues going to existing establishments.

III. *Private Institutions.*

Town.	Name of Establishment.	Thousands of Reals.		Observations.
		Income.	Expenditure.	
Seville	Charity Hospital ...	133	133	—
	Hosp. of the Venerables Sacerdotes ...	32	32	—
	Hosp. of San Bernardo	81	81	—
	" " Our Lady de la Paz, or San Juan de Dios	32	32	—
	Beaterio de la Santissima Trinidad ...	118	130	—
	Nine other foundations in six other towns ...	330	330	—
		726	738	

One of these private institutions, *the Hospital del Sangre*, was founded thirty years ago by a rich lady, to receive 300 patients. It is a beautiful, large, and regular quadrilateral building of stone, with a fine chapel built in an orange grove where a mass for the sick is held daily. During the cooler hours those who are able to be about take exercise in the gardens, and when the weather is hot under the pillars on the shady side of the building. The wards are on the ground floor, and the first story, for use in winter, is high and roomy, and never requires fires. The beds are made of two wooden pieces, whilst one mattress consists of a sack of maize straw and another consists partly of wool and partly of cowhair. There are two sheets for summer and winter, and a quilt that ought to be white. Among the men the nursing is done by paid male attendants, and on the female side by nuns and holy women specially dedicated to the service of this institution. Everything falling outside the sphere of the medical men is attended to by these ladies. They superintend the nursing staff, store-rooms, kitchens, cellars, wash-houses, and laundry, and arrange the diet. The bread is excellent and the wine very good. The senior surgeon is required to make one visit a day, and he receives a salary of £100. All other professional duties in the hospital are discharged by the house surgeon, who has summer and winter quarters in the hospital and an annual salary of £40. There is no medical school, lying-in establishment, or asylum department in connection with this hospital.

The accounts of the Junta Municipal (Borough Board) in Malaga are here presented :—

Junta Municipal, Malaga.

Institution.				Expenditure in Thousands of Reals.			
Maternity Hospital	...	...	...	Ordinary	...	...	24
				Extraordinary	...	...	192
				Wages of employés	...	...	8
Hospital	...	...	...	Ordinary	...	...	32
				Extraordinary	...	...	26
				Wages of employés	...	...	21
House of Refuge (Casa de Socorro)	...	...	...	Ordinary	...	...	45
				Extraordinary	...	...	28
				Wages of employés	...	...	18
Pay of staff employed in the offices of the Junta				...	...	...	23
				Total			417

The total outlay of the establishment, however, amounted to 469,000 reals, or 52,000 reals more than is accounted for in the above table; while the income only reached 451,000 reals, leaving a deficit of 18,000 reals. Great mismanagement has characterised the administration: revenues have disappeared, and an effort was made to remedy the shortcomings by uniting the three institutions of St. Anna founded in 1493, St. Thomas in 1500, and the Convalescents in 1571 with La Caridad (the Charity Hospital). The last is still ill-regulated. Founded in 1680, it ultimately passed under the control of the Borough Board. Each case is charged by the committee 3 and 4 reals $\frac{2}{3}$ maravedis a day, or for the contractor 5 reals. The income is made up from the proceeds of property which has accumulated, sales of clothes of the deceased patients, payments by patients, and eleemosynary offerings.

The Hospital of St. Julian was founded in 1682, to assist the aged infirm poor, and incurables and travellers, to dispense outdoor relief, and to perform other charitable functions.

The Hospital for Diseases of the Skin was established by the Archbishop of Toledo.

The Military Hospital was originally erected for other purposes. There is an official's room, two wards for the medical sick, six for the surgical, one for ophthalmic, and one for the detained: together with all the usual conveniences. The number of beds is 200, and about 2,000 patients are treated annually.

Santander has the Hospital of St. Raphael, with 200 beds, 100 of which are mostly occupied. The income is returned as £450, the expenditure as £1,050. It was in a wretched condition when taken over by the Borough Junta in 1834. The internal administration has been placed in the hands of Brethren of Charity since 1844.

The Province of Valencia, with 300 townships, has hospitals in thirty-six only, and the revenues are quite insufficient. The income is made up of proper rents, contributions by the State, municipality, and the church, sales of goods, and miscellaneous receipts. The charitable institutions of the town of Valencia have a total outlay of £26,500 per annum. The most important of them is the General Hospital, which, at all events in its department for the insane, owes its foundation to the celebrated P. Jofré. The buildings are sumptuous, though irregular, giving the establishment the appearance of a small town. It includes a foundling department. The asylum building abuts on the main edifice. Altogether there are eighteen wards, with a total accommodation for 1,100 patients, though that number is rarely reached. The men are located on the ground floor, the women on the first floor. There is a door at each end, through which a carriage and horses could be driven; the windows are high and lofty. Like many Italian hospitals, on taking one's stand at the central point one can look down the four wards successively, which are arranged in the form of a cross. Two rows of colossal pillars further divide these apartments into three long alleys. The beds are of iron, painted green, having a sack of straw and a mattress stuffed with wool. The lower parts of the walls, to the height of five or six feet, are covered with coloured glass tiles. There is a ward for convalescents, founded by a noble lady, in connection with the women's department, and containing eight beds. The floors are of splendid white glazed tiles. The foundling department numbers 120 cradles. A bathing establishment also is provided, containing sixteen large stone baths, some for use by patients in the hospitals, while six are reserved for outsiders, on paying a sum of 3 reals ($7\frac{1}{2}d.$). All patients are admitted without distinction, foreigners on presenting letters from their consuls.

There is also a clinic and school of anatomy.

Ever since the fifteenth century, there have been many hospitals in Valencia. Long ago three charitable institutions, the Reina, Esclapes, and San Lazaro, were united with the General Hospital,

and the government remained with a committee of the board which brought this result about. It embraced two jurors who were gentlemen and citizens, an ecclesiastic, and one of the ten local deputies. Charles III., in 1785, placed the management in the hands of a junta composed of a physician, five ecclesiastics, a governor, four nobles, four financiers, and the rector. Lastly, it has passed into the administration of various public boards of charity. In the year 1847 three other hospitals, those of En Bon, En Couil, and of Poor Students, were consolidated with it, and their revenues added to its own. The staff includes nine priests, four doctors, a senior surgeon, and clinical clerks. The nursing is in the hands of fifty nuns of the Order of St. Vincent de Paul, who may be said to superintend the domestic concerns throughout.

Valencia has an establishment for poor priests, with accommodation at one time for 500 sick. The concession was granted in 1356, at first for twelve years, but subsequently it was perpetuated.

Without prolonging this narrative unduly, it is desirable to mention the hospitals of Valladolid. There is a General Hospital of the Resurrection, in a magnificent building, which affords accommodation for 300 patients. In connection with this institution nine Sisterhoods of Charity labour, and it is administered by the head of the society. The Sisters receive in payment for their services a sum of 40 reals (equivalent to about 8*s.* 6*d.*) a month, together with board and uniform. There is an administrator who is paid 6 per cent. on recovery of debts and has quarters in the house. A doctor is paid £27, and a surgeon £15 per annum. The chaplain receives 1*s.* 3*d.* a day and £6 10*s.* annually for performing mass. The clinical clerk has 1*s.* 3*d.* a day, the male sick attendant 10*d.*, and the porter 10*d.* The professors of medicine and surgery are nominated by the Borough Board for Charity.

There is a military hospital in a convent of Carmelites, with room for 500 beds, of which 250 to 300 are usually full. It is administered by a military inspector, a controller, and a commissary for admissions. The medical staff includes a Vice-Consultor who is the local facultative head, two senior assistants, a junior assistant, and a dispenser.

Finances.

The Royal Government of Spain votes an annual sum of £300,000 on behalf of public institutions of charity, and £400,000 on behalf of houses of correction. Of the former sum the provinces of Spain, numbering forty-nine in all, receive £100,000, with the

obligation of themselves providing £200,000 more out of their own funds. Of the remaining £200,000 the Asylum of Madrid, which is to serve as a model for the rest of those in the kingdom, receives one-half, the Hospice of Blind and Deaf-Mutes in Madrid £40,000, and the Asylum in Galicia £60,000. Further, a special amount of £100,000 has been, on certain occasions, voted. Various sums are also contributed by the State in aid of sufferers from unavoidable calamities, and of Spaniards in difficulties abroad, and the provinces also render assistance in the same direction.

In accordance with the view taken by the authorities in Spain, who hold that succour granted to individuals in their own homes is preferable to that afforded them in public establishments, there are universally throughout the monarchy societies and machinery for distributing aid at home. These agencies are sometimes State, sometimes provincial or municipal, often private.

The Municipal Board of Madrid, with the view of furthering this domiciliary *Beneficencia*, as it is called, has established in every parish special committees to assist the necessitous. Most of the money required is supplied by private subscriptions. The number of those assisted during a period of five years was, for the various parishes:—San Andres, 268; Santa Cruz, 198; San Ildefonso, 444; San Pedro, 57; San Lorenzo, 276; San Sebastian, 714; San Gines, 260; Santiago, 128; San Marcos, 349; San Millan, 86; San Luis, 147.

THE HOSPITALS OF MADRID.

The general system of obtaining and disbursing funds for public charities in Spain will be clear from the facts just stated, and the figures previously given for certain towns and institutions which may be taken as a fair sample of the rest. The financial system of the hospitals of Madrid, the consideration of which has been postponed until this point, will now be explained in detail, as likely to throw light upon such points as have been hitherto left unnoticed.

The total income of the general hospitals of Madrid, without counting the subvention granted by the State, or the sum accruing from suppressed ecclesiastical foundations, reached a total of £13,850. The Budget estimate of outlay was £25,675. For all institutions under the Board of Public Charity for the capital the estimate of income was £50,100, and of expenditure £67,870. There was thus a deficit of £17,770, and a further deficit of £16,910 was brought forward from the two previous years. The munici-

pality contributed a sum of £6,800 to meet the former deficit, and it is to be presumed that the State and ecclesiastical revenues sufficed to clear off the remainder.

Passing on to review in detail the sources of revenue of the general hospitals, leaving out of consideration all other institutions, we find the income was made up as follows :—

By properties and tenements in Madrid, various	£
deductions being made for repairs, &c.	2,130
From the Plaza de Toros and accessories ...	2,650
Quit-rents	655
Dues on food articles	6,950
Sales of clothing belonging to deceased	
persons and of medicines	315
Payments of paying patients	530
Donations, legacies, alms, &c.	620
	<u>£13,850</u>

On the other side of the account we have as expenditure :—

Food, furniture, and fuel necessary for main-	£
tenance of patients	9,125
Food, furniture, and fuel necessary for main-	
tenance of officials	1,800
Food, furniture, and fuel necessary for the	
Hospital of San Juan de Dios ...	1,810
Medicines and dispensary	1,665
Renewal of linen and beds	842
Renewal of clothing	196
Renewal of kitchen utensils	228
Salaries of medical officers	985
„ surgical officers	793
„ dispensary officers	596
„ clerks of medicine and surgery	1,110
Wages of male attendants	100
Wages of servants	2,145
Salary of director-in-chief	120
Salaries of his assistants, and of persons	
employed in the commissariat depart-	
ment	560
Pensions, &c.	290
Carried forward	<u>£22,365</u>

				£
Brought forward	...	...	...	22,365
Paper, ink, printing	...	...	...	185
Burdens upon the properties of the institution	...	...	...	680
Masses	...	...	...	205
Functions of the Church celebrated in Holy Week	...	...	...	35
Educational	...	...	...	96
Honoraria to chaplains	...	...	...	800
Expenses for repairing the establishment				1,129
Extraordinary	...	...	...	180
				<u>£25,675</u>

The staff of the General Hospital of Madrid on the facultative side, as the Spaniards term it, consists of five clinical professors and five medical men, resident, and taking duty in turns. There are also pupils in the house, numbering thirty, chosen by open competition from among those who are certificated in anatomy, dissection, physiology, and hygiene, and who proceed to the degree of licentiate in medicine. The clinical clerks who make up the total of these gentlemen, perform the minor duties connected with the sick.

The administrative department includes a porter, a steward, clerks, spiritual functionaries, Sisters of Charity, a cook and assistants, servants, nurses, and attendants. The wards, which are divided into male and female, and again into medical and surgical departments, contain from ten to twenty-four beds each, and the whole establishment includes a service of 250 beds. On the male side there are the operation schools, the surgical schools, both elementary and advanced, and the medical schools, both elementary and advanced. The women's department is divided into pathological schools, surgical schools, medical schools, both elementary and advanced, the obstetrical schools, with the several sections for pregnant women, for women in labour, and for lying-in women. There are likewise in this quarter the schools for gynaecology and the children's wards. All the requirements of modern progress are fully satisfied.

On the lowest floor are the kitchens and stores. The building for the Sisters of Mercy, which has a robing-room adjacent, contains a receiving-room, a work-room, a common sleeping apartment, a dining-room, together with kitchens and sick-rooms.

Among the accessory offices are the out-patient consulting room, where the medical men on duty give advice gratuitously. There are rooms for the doctor and pupils on duty, and for the priest. There is a dining-hall for the attendants, a larder, store-rooms for various utensils of iron and glass, for bedding and clothing, coal-hole, and quarters for the storage and cleansing of articles which are the property of patients.

The public hall, the professors' room, and various other offices and stores in the keeping of the porter or for the use of the doctors complete the list of apartments in the building.

From the Official Guide to Spain for the year 1890, some valuable recent information is derivable serving to connect and make clear many of the details already given.

The following is a report addressed to the professional visitor of charity and health, the Most Excellent Señor D. Nicolas Escobar:—

“The public charity of Spain was not formally regulated until the reign of Charles III. The Parliament of Cadiz laid the foundations of the law of Beneficencia. The organisation of this branch in the Ministry of Government was confirmed by the law of 1849. In 1868 this law was rescinded for charitable institutions pending rearrangements. On the 22nd of April, 1873, an instruction was at last issued organising the services, and drawing up internal regulations for all general institutions, which are the following: the Union College in the Vista Alegre, the hospitals of the Kingdom of Toledo, of Isabel the Holy in Leganés (an asylum), of the Princess, of Carmen, and Jesu Nazareno, meant respectively for male and female incurables. Of all these establishments the management and supreme administration were committed to the Board of Health and Charity (*Dirección de Sanidad y Beneficencia*) from the 31st of January 1865. This subordination was suppressed in 1873 and revived in 1874. Private charity had, in the first case, been neglected, and then later left to the exclusive charge of ecclesiastics, much to the waste of the resources of the monarchy.”

The Beneficencia Publica.

The Beneficencia Publica of Spain is administered by the representatives of provincial and municipal self-government, termed *ayuntamientos* or *juntas*, except where the institution belongs to some private body, when a committee of the patrons or subscribers administers the funds and regulates the administration.

This was not always so, however, for in the palmy days of

Spanish ascendancy the initiative, unquestioned and far reaching, was taken by the monarch himself. It was on the command of Philip II. that the hospitals of Madrid were consolidated; it was the purse of Philip III. which enriched them; it was by the will of Charles that the medical college of San Carlos was established.

But since the constitution of 1812 public bodies have been established, chosen upon an elective basis, and these have full control over the charitable institutions of the kingdom. These bodies are termed *ayuntamientos* or *juntas*, and correspond somewhat to our town councils or local boards.

Article 312 of the constitution of 1812 directed that for the government of townships *ayuntamientos* should be established, consisting of the justice of the peace, or justices of the peace, the prefects, the proctor syndic, and the president for the political chief where there might be one. They were to be chosen by election in December by a plurality of votes, and enter upon their office in the following January. The justice of the peace was to be changed annually, the prefects half each year, and also the proctors syndic where there were two. If there were only one syndic he was to be changed each year.

Under Article 321 the sphere of action of these *ayuntamientos* included (1) the care of the public health, and (2) the charge of hospitals, hospices, foundling establishments, and in short that of the *Beneficencia* within the rules laid down.

The provincial deputations were to be renewed one-half each year, and to them was committed the charge of pious foundations and establishments of the *Beneficencia Publica*. No material change was made in these regulations by the constitutions of 1837, 1869, and 1876.

A word remains to be said respecting the *Junta Municipal de Beneficencia* of Madrid (municipal board for the charities of Madrid). Between the years 1822 and 1836 it brought all funds into a central chest, and established a central management. It established the maternity hospital of Madrid, and the hospital for incurables, and divided the general hospital into two.

A ministerial circular dated the 14th of June, 1879, issued by Government and dealing with the general direction of *Beneficencia* and health, is of importance. It began by stating that it was called for by the fact that the provincial and municipal *juntas* of health, which had existed since 1877, required renewal in 1879, and then quoted the following regulations :—

" Art. 52.—In capitals of provinces there shall be established provincial juntas of health, and municipal juntas in all townships of more than 1,000 souls.

" Art. 53.—The provincial juntas of health shall consist of a president, who shall be the civil governor or have his powers, of a deputy for the province acting as vice president, of a justice of the peace, the captain of the port, an architect or civil engineer, two professors in the faculty of medicine, two in that of pharmacy, and one in that of surgery, besides a veterinary surgeon and three gentlemen who shall represent property, commerce, and industry. One of the professional members shall discharge the duties of secretary to the junta, and to him shall be paid £30 for the expenses of the office.

" The secretary shall be chosen by the same juntas.

" The special directors of health in ports shall be functionaries of the board of health, as shall be also the senior sub-delegate of health in his port of residence.

" Art. 54.—The municipal juntas shall include the alcalde or justice of the peace as president, a professor of medicine, pharmacy, and surgery, a veterinary surgeon, and three other members—the medical expert discharging the duties of secretary.

" For Madrid there shall be six additional members, two being skilled in the medical sciences, and one an architect or civil engineer."

An important proposal was made in 1885, dealing especially with the council of health, which was to act in conjunction with the minister as supreme in this department. The council was to include the following members: The minister himself as president, the director-general of health, the director-general for the Army and Navy, the chief of the national fleet, two diplomatic agents, two consular agents, five experts of the faculty of medicine, two in pharmacy, a veterinary expert, an engineer, an expert in architecture.

All are nominated by the king on the proposition of the minister. The secretary receives a salary of £240, and others are remunerated on a similar scale.

All professors are nominated by the king.

The health of those engaged on the sea was safeguarded by the following regulations:—

Sick lazarettos.

" Art. 139.—These lazarettos shall include two divisions, one for healing and observation, the other for infectious maladies.

"Art. 140.—In the former division there shall be a bathing establishment, one or more hospices and the necessary canteens; also a hospital with as many wards as are required for the separation of distinct infirmities, contagious or infectious, and with *locales* for dispensary, servants, and autopsies, a convalescent hospital, a mortuary, and a cemetery partly reserved for persons who have died without receiving the rites of the Roman Catholic Church; four yards for cattle, the requisite provision of warehouses for the disinfection of insanitary merchandise, two lavatories, one intended for the clothing of persons who have been afflicted with contagious maladies, a building for offices, collection of customs, dwellings of employés and servants.

"As regards the department for infection, there shall be a bathing establishment, a hospital, a convalescent ward, a cemetery, two yards for cattle. There shall also be a number of warehouses necessary for cleansing, disinfecting, and ventilating merchandise; two lavatories, and a building for servants and employés."

Common to both departments there were to be a central chapel, landing stages, reservoirs for water, fountains, cisterns, quays, gardens, and shrubberies.

By a regulation, Article 46, of the 31st of March, 1888, the local juntas of health of capitals of provinces which were seaports were to include three doctors or licentiates in medicine, surgery, or pharmacy, of recognised merit, preference being given to such as may have distinguished themselves in public hygiene. The juntas of the other townships along the littoral shall include two experts in medicine and surgery.

In concluding this sketch we may quote three advertisements for medical officers in the service issued by the juntas, showing the rate of payment usually offered:—

Second port medical officer for Valencia, £120 a year salary.

Medical officer for the sick lazaretto of Mahon, salary £80 with £40 additional for extras.

Secretary and medical officer for the sick lazaretto of Pedrosa (Santander) with £80 and £40 additional for extras per annum.





CHAPTER XXVII.

SWEDEN AND NORWAY.

SWEDEN.

HISTORICAL.



THE hospital system in Sweden, like that of other European countries, owes its foundation in the first instance to the benevolence of religious communities. During the latter period of Roman Catholic influence in Sweden, circa A.D. 1425-1475, institutions for the care of the sick poor were established in many parts of the country, connected with the monasteries and convents, and maintained at their expense. These institutions partook rather of the nature of almshouses and refuges for sufferers from leprosy, than of hospitals in the general sense of the word. On the suppression of the monasteries in 1500, these establishments for the sick were still allowed to retain their revenues.

The King, Gustav I., moreover, conferred great benefit upon the people by consolidating several of the small houses in various districts, and so establishing in their place one large hospital. He further placed them under the supervision of high ecclesiastical authorities, and established a fixed scale of patients' payments. These establishments were also permitted to become the legatees of rich persons, a benefit previously exclusively reserved by law to the relations of the testator. In 1737, at the instigation of King Frederick I., the former temporising and unsatisfactory systems were modified by the appointment of a commission of health to inquire into the provision made for the sick poor. To this commission is

due the foundation of the first hospital properly so called in Sweden. Parliament supported the reforms instituted by the commission of health by setting aside certain dues for the purpose of repaying the cost of building the proposed hospital. A further sum being required, it was speedily raised by private subscription. The new hospital was established in Stockholm, but patients from all parts of the country were admitted into it. It was opened in 1752 under the name of the Royal Hospital of the Order of the Seraphim, and was placed under the direction of the Knights of that Order. The work of successful hospital building, once started, soon proceeded apace, and many other similar institutions were established in various parts of the country. In 1765 a Royal Ordinance was issued, commanding the establishment of hospitals in certain parishes, provinces, and districts, at the cost of the inhabitants. For the encouragement of this scheme it was enacted that all institutions for the sick should have the same financial advantages as the hospital in Stockholm. The plan of uniting several small establishments into one complete institution was, by Royal order, still further enlarged. Finally the revenues of all the charitable institutions were collected, and made to form one common hospital fund. This fund proving, however, insufficient to meet the growing wants of the population, Parliament in 1815 sanctioned an annual grant from the public funds to meet the requirements of the hospitals.

Year by year the inhabitants of some of the provinces, becoming alive to the rapid spread of venereal diseases, undertook to provide means to extend the hospitals with a view to the suppression of this evil. This action of certain provinces was approved by the Government, which consented to double the yearly sum of 8,000 kroner previously granted for provincial purposes. In 1818, in order to provide a reliable income in place of the less certain contributions from voluntary sources, parliament levied a tax on every assessable person, called the venereal hospital tax, which was continued until 1873, when it was abolished in favour of an ordinary hospital tax, the larger portion of the proceeds of the new impost being, however, still applied to the original purposes.

The direction of the hospitals in Sweden was at first entrusted to a supreme board ; afterwards to two Knights of the Order of the Seraphim ; and finally, by Royal ordinance to the council of the same Order, in conjunction with the medical director-general. The immediate supervision of each hospital was at first entrusted

to the lieutenant of the province, but in 1817 the management was placed in the hands of a separate board. In 1864 a decree was passed, constituting the board of health the supreme authority over the affairs of the hospitals, with right to institute an inspection when desirable. The Royal Board of Physicians has also the right of inspecting the hospitals.

HOSPITAL ACCOMMODATION IN SWEDEN.

In 1881 the hospitals in Sweden numbered 113, with a capacity of 6,221 beds in all. In the same year the population of the country reached 4,572,245, giving a proportion of one bed to 735 persons. The hospitals in Sweden are mostly built on the corridor system, with the exception of the Sabbatberg Hospital in Stockholm and the Karlsborg Military Hospital, which are both pavilion hospitals. Amongst the new hospitals constructed on the corridor system are the hospital at Lund, built in 1868; the Halmstad Hospital, built in 1869; and the Engelholm Hospital, built in 1870. These hospitals each contain from 60 to 100 beds. The ventilation is primitive, and allows only 28 cubic metres air-space per bed. Voluntary hospitals in Sweden principally take the form of cottage hospitals, and are supported by private subscription with a small subsidy from their respective communes. An exception to this rule is the Sahlgrenska Hospital in Gothenburg, which is entirely supported by voluntary contributions. In all hospitals patients are required to make a daily payment for their maintenance in the general wards, of from 7*d.* to 11*d.* per diem in the provinces and a slightly increased sum in the large towns. Patients in private rooms pay a higher rate, of from 1*s.* 8*d.* to 3*s.* 8*d.* per diem. The diet in the Swedish hospitals is carefully regulated, and we can declare from personal knowledge that the best of them are most efficiently administered, and that the patients are well cared for and very comfortable.

THE NURSING SYSTEM.

The nurses employed in the Swedish hospitals are mostly provided by (*a*) the institution of deaconesses in Stockholm, (*b*) the training school for nurses in connection with the ambulance society, and (*c*) a few hospitals which possess training schools for nurses. The deaconesses receive a thoroughly practical and theoretical training at their institute, but the nurses from the other

institutions receive a shorter and less systematic training. Hitherto a very small number of persons of the better classes have entered the nursing profession. The nurses in the hospitals are all women. The proportion of nurses to patients varies from one to twelve, to one to twenty, a very marked difference which reveals much of the defects of the system. All nurses receive their pay direct from the hospitals, except the deaconesses, whose earnings are paid to the credit of the institution at Stockholm.

ADMINISTRATION.

Each hospital in Sweden, as already stated, is under a separate board of directors. It is the duty of the directors to control and manage all departments of the hospital. These directors have no medical qualification, and matters relating to the treatment of the sick are controlled by the medical board at Stockholm. The chief physician administers the hospital, subject to the board of directors. He is responsible to them, and engages and discharges the nurses and domestic staff. He is entitled to take part in the meetings of the board. The general and economical arrangements of the hospital are placed in the hands of a lay superintendent.

MAINTENANCE.

Income.—The income of the hospitals is derived from :—

- (i.) The poll tax of which we have spoken.
- (ii.) The admission charges (paying patients).
- (iii.) Interest on invested moneys.
- (iv.) Rents of farms and estates.
- (v.) Grants from the communes.

In all the hospitals it is expected that those who can afford it will pay for the care bestowed on them, and, as we have shown in another book, 'Pay Hospitals' (Churchill, London), payment is in some cases a necessity.

During the years 1876–1880 the total income was :—

			£	s.	d.
(i.) From hospital tax	...	...	173,187	4	10
or a yearly average of	...	...	34,637	8	11½
(ii.) From other sources	...	...	313,329	4	6
or a yearly average of	...	...	62,665	16	10½

The expenditure during the same period was :—

	£	s.	d.
(i.) Maintaining the hospitals ...	372,417	14	6
or a yearly average of ...	74,483	10	10½
(ii.) For new buildings and repairs ...	56,827	2	4
or a yearly average of ...	11,365	8	5½

NORWAY.

The hospital system of Norway is practically the same as that of Sweden, to which country it is so closely allied, being under the same Government. In both countries the State plays an important part in the hospital economy. We have already dealt with Sweden with some fullness of detail, and it will not therefore be necessary to make so full a statement concerning the system of sick relief to be found in Norway. There are thirty-five civil and five military hospitals in the country. To only one of these, a civil hospital, is a medical school attached. This institution is the State Hospital at Christiania, and the State Medical School is connected with it. The State Hospital is so admirably conducted that we will give a special description of it. It may further be remarked here that the nursing in Norwegian hospitals is done principally by sisters of the Deaconesses Institute in Christiania. Indeed the Deaconesses are the only class of nurses who receive systematic training.

THE STATE HOSPITAL, CHRISTIANIA.

This hospital is one of the best arranged hospitals in Europe. It was originally established in 1826, but was rebuilt on new principles in 1880. The present buildings contain 250 beds, irrespective of the maternity and children's departments, which have not been reconstructed. The new buildings provide increased accommodation for infectious cases. Previously these cases were refused, on account of insufficient space. The hospital is entirely on the pay system, and is conducted on the most economic basis, but care is taken to secure the most complete efficiency in every department. Pauper patients are received under an agreement with the poor-law authorities. By this arrangement the guardians pay 10 per cent. less than the recognised scale of charges (i.e. from 1s. 7d. to 3s. per diem) for the poorest class of

patient. Material is thus provided which affords facilities for clinical instruction in the medical school. The hospital is practically self-supporting, for in addition to patients' fees, it draws a considerable income from a bathing establishment, which is in connection with it and is open to all the city. A budget is prepared every year, and laid before Parliament, based on the expenditure of previous years. Should a difference exist between the estimated expenditure and estimated income, any deficiency is defrayed by the Government, with the sanction of the legislature.

Administration, Direction, and Medical Staff.—The hospital is under the control of the Home Office. The internal arrangements are under the management of a director. The medical staff consists of five chief physicians, five chief surgeons, five reserve surgeons, a military surgeon, and nine clinical assistants. Some of the chief members of the staff are professors of the university. All the senior medical staff lecture to the students of the medical school. The salary of the chief physicians is 1,200 kroner. The military surgeon receives 1,800 kroner (£99) per annum. The reserve physicians receive a salary of 1,000 kroner (£55), and those amongst them who are non-resident are paid 1,400 kroner (£76).

Patients.—The patients are of three grades, classified according to a fixed scale of payment. The first class occupy the larger wards, and receive the plainest diet. They pay 1s. 7d. to 3s. per diem. The second class occupy the smaller wards, receive better diet, and pay 3s. 8d. per diem. The third class occupy single rooms and have individual nursing and attendance. This class pays 6s. 8d. per diem. In the children's department, where children under six years of age only are admitted, the charge is 1s. 5d. per diem. Mothers are allowed to accompany their children, and are charged 1s. 2d. per head per diem.

The Nursing Staff.—The nursing staff consists of a matron, two head nurses, thirty-nine assistant nurses, one head midwife, one assistant midwife, two male nurses, and extra nurses when required. The salaries vary from 168 kroner, or £9 2s., to 400 kroner, or £22, the total expenditure for salaries in this department being 210,820 kroner, or £11,420.

Wards.—The largest wards in the Christiania State Hospital contain ten beds each, the smaller ones four beds, and there are a large number of single rooms for patients of the highest grade. Each bed has at least 1,000 cubic feet of air-space allotted to it.



CHAPTER XXVIII.

SWITZERLAND.

THE earliest hospital in Switzerland of which we have mention is the Cantonal Hospital at Zurich, founded in the twelfth century. At the present time there are large hospitals in most of the towns in Switzerland, and district hospitals distributed in various parts of each canton. Most of the hospitals are communal institutions, and are under the control of committees consisting of members of the communal governments, and medical men. The internal administration is under a director, who has various assistants with him. The Swiss hospitals are on the pay system; there are, however, one or two free hospitals, and others have a limited number of free beds attached to them. There are also a few private institutions, under private direction, which are free. Patients' fees, which vary from 8*d.* to 12*s.* per diem, do not suffice to meet the expenses of the hospitals. The deficiency is supplied under more than one system, so that the required sum is defrayed in one of the following ways: either (1) by the State; (2) by the State and commune combined; (3) by private contributions; or (4) partly by State subsidy and partly by private contributions.

The male and female nurses in the Swiss hospitals are supplied through various channels, some being members of religious communities, and others civil attendants. Training is given in some of the hospitals, and at all institutions in connection with the Sisters of Charity. Nurses' wages, though moderate as compared with English rates, are better in Switzerland than in some

other European countries. The hospitals are built on various principles, but the pavilion system is adopted in the more modern erections. Summer barracks, with canvas walls, are attached to some of the hospitals. There are also several medical schools, that at Zurich being probably the best known, and clinical instruction is given at the principal hospitals.

Some Financial Points.

As regards the maintenance and management of its hospitals, Switzerland does not differ essentially from adjacent countries, except, perhaps, in the fact that the cantons, being practically independent, and the people masters of all government, centralisation is less powerful than elsewhere.

A few points may be quoted from the year-book for the canton of Berne. The sum paid by the State for relief of the poor on account of the Berne Lying-in Institution amounted in 1876 to 64,000 francs, and in 1877 to 102,000 francs. Private benevolence does very much in aid of charitable establishments. The average number of persons who left bequests for hospitals was, in 1837-74, 34; in 1875, 87; in 1876, 65; and 1877, 85. The amount was, for 1876, 229,541 francs, and for 1877, 291,075 francs. Yet these offerings form only 12 per cent. of the sum given by the State and parishes, and only 3 per cent. of the amount of estates actually bequeathed. The bequests of money for care of the sick numbered, in 1875-7, 128, or 30·4 per cent. of all the bequests, and in 1871-4, 67, or 28·1 per cent.

Of the 128 bequests for sick relief, twenty-four were for sums less than 200 francs, two for amounts between 50,000 and 100,000 francs. A few special instances are set out in the table on page 669.

As regards district hospitals there were in Switzerland in 1874 seventeen such institutions in all, with 100 beds belonging to the State, and 215 beds belonging to the parishes.

The possible number of treatment days was 114,975, whilst the actual number was 86,796, or an average of $28\frac{1}{2}$ days for each of the 3,045 patients.

To each bed there were $9\frac{2}{3}$ patients, and $275\frac{1}{2}$ treatment days.

The costs of treatment, exclusive of furniture, amounted to 117,083 francs; and on new furniture was expended 4,576 francs. The total cost of treatment amounted to 160,896 francs, or 184 francs per day. The State contribution was 53,046 francs.

Table showing some of the Bequests for Sick Relief in 1875-76.

District.	Hospital.	Amount.
		frs.
Langenthal	District Hospital	3,206
Berne	Institution for Feeble Children ...	3,200
"	Borough Hospital... ..	2,000
"	Private Poor Institution	500
"	Servants' Hospital	1,000
"	Jenner Hospital	250
"	Insel Hospital	5,000
"	Jenner Children's Hospital	250
"	Frau Dändhker's Nurses' Home	400
"	Bricklayers' Hospital	1,000
"	New Lying-in Institution	1,000
Biel Town	Parish Hospital	14,550
"	District Hospital	1,000
Freibergen Saignelégier ...	St. Joseph Hospital	20,545
Frutigen Aeschi	Sick Chest Hospital	285
Neuenstadt	Montagne Hospital	6,593
		(in 17 sums)
Thun	Hospital	1,500
"	Borough Hospital... ..	50,000

In the beds belonging to the parishes the treatment days numbered 33,648, and cost 48,515 francs ; 744 patients were treated for payment during 15,118 days, at a charge of 20,672 francs.

These amounts make a total sum of 122,233 francs. The extra sum required, 38,663 francs, was met from the special revenues of the establishments.

GENEVA.

The principal hospitals in Geneva are the Cantonal Hospital, the Butini Infirmary (a private institution), and the General Hospital.

The Cantonal Hospital.

This is a general hospital situated outside Geneva at Plainpalais. It has accommodation for 325 patients. The buildings, which consist of two stories, are constructed on the block system, with the administration block in the centre. The surgical wards occupy the ground floor, the medical wards the first floor, and on the second floor are the wards devoted to lock cases. Several pavilions, with canvas walls, have been recently erected in the garden for summer occupation. They are reserved for surgical patients of both sexes, and accommodate from ten to twelve beds in each. Connected with the hospital is a maternity department,

situated at some distance from it, but controlled and administered on the same system.

Administration, Direction, and Medical Staff.—The hospital is administered by a committee, consisting of members of (*a*) the Government, (*b*) the commune, and (*c*) the town council—numbering nine members in all. This committee appoints and discharges all the officials, has absolute power to introduce any improvements it may think proper in the interests of the institution and incur all necessary expenditure for this purpose, and renders an account of its stewardship to the State by means of a report which deals with every department of the administration. The duration of its appointment is four years. All the members are eligible for re-election at the expiration of that period. Their services are honorary. The internal management is under the control of a director, who has a staff of assistants. The medical staff consists of the clinical professors of the university, who are paid by the State, and assistant physicians and surgeons, some of whom are resident, and all of whom are paid nominal salaries by the hospital.

Admission of Patients.—No patients are received into the hospital without payment from some quarter. Destitute strangers, for example, are admitted at the expense of the municipal authorities of Geneva, as provided by the federal constitution. Inhabitants of other cantons are received into this hospital on the same conditions as destitute strangers, reciprocity in such matters being an excellent and unique feature of the Swiss system. On the other hand, the expenses of indigent inhabitants of Geneva are defrayed by the Assistance Publique. Payment is made for each patient received under either of the foregoing systems at the rate of 1*s.* 3*d.* per diem. The State provides a considerable income, as it pays a further sum of 1*s.* 3*d.* per head for each of the above classes of patients who enter the hospital.

Wards.—The largest wards in the Cantonal Hospital of Geneva contain sixteen beds, but the average number of beds to a ward is eight or nine. Each bed is provided with 1,500 cubic feet of air-space. The wards are ventilated by means of steam propellers, which force the pure air through pipes into the wards. In winter the air is warmed before its introduction into the wards.

The Nursing Staff.—The nursing staff in this hospital consists of ordinary paid male and female attendants. They receive board and lodging, and a salary varying from £14 to £20 per annum, in addition to a gratuity of £4 for each male, and of £3 for each

female nurse, paid every three or four years to their account in a savings bank.

Income.—This hospital, which has no endowment, is supported from the following sources: (1) a percentage of certain taxes; (2) an annual collection which the hospital is authorised to make throughout the canton, and which realises about £1,000 per annum; and by (3) receipts from bequests and donations.

The General Hospital.

This hospital was built in 1868 by the inhabitants of Geneva. It is intended for the sick poor of the town only. The controlling committee is of the same nature as that of the Cantonal Hospital. It is supported by funds proceeding from an invested capital, by taxes, by contributions, and by an annual collection. There are no special features in regard to this hospital.

ZURICH.

The Cantonal Hospital in Zurich, with from 200 to 300 beds, is the most important hospital in Switzerland. It presents a square lofty front, overlooking the lake, and is situated on high ground. There are single wards on the first story, containing ten or twelve beds each. The floors are of varnished deal, and the walls are painted in oil. On the principal story are a set of private wards for paying patients, besides smaller wards. There is no stringent separation of medical from surgical cases, adjacent wards being used for patients of either class. This hospital is in connection with the medical faculty of Zurich University, in the same way that the Berne Lying-in Institution is in connection with the Berne faculty. The professors of medicine and surgery are physicians and surgeons to the hospital. There is a good operating theatre and post-mortem room, with all appliances for microscopic examinations and research. There is a department for diphtheria, with two wards and operating theatre on the ground floor, and a special glass-covered chamber for operation cases. Here also there is every appliance for clinical research. There are two buildings set apart for cases of typhoid fever and phthisis, and for the Sisters' Home. Nursing is by women throughout, except that there is a certain small number of male attendants.

BERNE.

The principal hospitals of Berne are the Island Hospital, the Outer Hospital, the Convalescent Hospital, the Cantonal Maternity Hospital, the Zieglers Hospital, and the Citizens' Hospital.

The Island Hospital contains 260 beds.

The Outer Hospital is for incurable cases, and is a branch of the Island Hospital. It contains 121 beds, twenty of which are reserved for children. It is free to all poor inhabitants of the canton.

The Convalescent Hospital at Waldau, near Berne, contains 360 beds, and is also in connection with the Island Hospital. No cases are admitted except upon payment. The hospital has also a nursing institution attached to it.

The Maternity Hospital is a fine cantonal institution, containing eighty beds.

The Zieglers Hospital was founded in memory of a citizen of Berne in 1887, and called after his name. It contains 100 beds.

The Citizens' Hospital contains 181 beds, and is a civic institution, free to all citizens. It receives military patients on payment.

ST. GALLEN.

The Public Hospital is the chief hospital of St. Gallen, the others being smaller and relatively unimportant. It contains 300 beds, free to all inhabitants of St. Gallen. Other patients pay from 1 to 10 francs per diem. The hospital was rebuilt in 1866, and three years later was transferred by agreement to State control. Under one of the clauses of the agreement, the then existing accommodation of 120 beds was doubled. In 1873 two wings were added, each containing thirty beds. Ten years later, a further addition, consisting of summer barracks with sail-cloth walls, was made. These barracks have felt roofing, and contain bath-rooms and the usual offices. There is a special department for typhus fever cases. A wood of seven acres acts as a shelter for the buildings on one side. The hospital is administered by a committee nominated by the State. It is well supplied with bath-rooms, and contains a disinfecting apparatus used in German Government institutions.

The Nursing Staff.—The nursing staff consists of eight Sisters of the Order of P. Theodosius, four probationers, and three male

and seven female lay attendants. These attendants came from various institutions, or were trained in the hospital.

Wards.—The wards in the principal buildings of the St. Gallen Hospital contain eight beds in each. The wards are separated by an attendants' room and offices. In the wings are single rooms and wards with from one to four beds in each. The wards are heated throughout by hot-water pipes. The ventilation is by shafts, which are heated in winter by large chimneys in connection with the culinary department.





CHAPTER XXIX.

TURKEY AND ROUMANIA.

TURKEY.

HISTORICAL.



It is doubtful if institutions possessing the characteristics of hospitals intended exclusively for the reception of the sick, existed in Turkey previous to the fifteenth century. Establishments called Xenones (no doubt derived from the ancient Greek custom among the wealthy of entertaining strangers in a separate portion of the establishment) were to be found in various parts of the country. In Turkey, however, the Xenones were institutions having somewhat the character of inns, where strangers could be lodged, protected, and cared for when sick. When a plague or epidemic visited the country, no special buildings were set apart for the reception of sufferers. Such patients were always tended in their own homes, and no definite system of isolation was attempted. In 1465, a Home for Incurables existed in Stamboul, and all the principal mosques possessed Ismarets, which mostly served the purpose of "Fours économiques," and supplied poor students, and sometimes other indigent persons, with food. Other institutions, called Tab Khanehs, were occasionally attached to the mosques, and provided shelter as well as food for a very limited number of poor persons. The earliest hospitals of a modern type were established in Constantinople by the Greek and French communities, and were originally intended for sufferers from the plague. In recent times, hospitals have steadily increased in number, and

at the present day, from some cause or other, the accommodation for the sick appears to exceed the demand, the full number of beds in the hospitals of Constantinople being seldom occupied. The Turkish dispensary system differs from that of most other countries, medicine seldom being distributed gratuitously to the indigent poor, though treatment is prescribed free of charge. The nursing in the hospital is done by paid attendants. In the foreign hospitals situated in Turkey, that is to say those not under Turkish management, the nurses are Sisters of Charity.

CONSTANTINOPLE.

The principal hospitals in Constantinople consist of six Turkish and ten foreign institutions. They are as follows :—

The Turkish Civil Hospital for Men, Stamboul.—This hospital was built in 1843 for homeless strangers of the Mohammedan faith. Patients pay 2s. 6d. per diem. It contained 300 beds in 1885. The hospital consists of a quadrangle with a corridor running round the inner side, the centre of the quadrangle being a garden. It contains an isolated ward for small-pox. The revenue of the institution is derived from endowments. The nurses are paid. The expenses of the hospital amount to about £6,818 per annum. There is an out-patients' department, in which gratuitous medical advice is given but where medicines are not provided.

The Muhadjir-Hastâ Khanesi.—This hospital was established for refugees, and contains forty beds. Connected with it is a home for widows and an orphanage.

The Nisa-Hastâ Khanesi.—This institution was built in 1884 by Mazhar Pasha, Prefect of Constantinople. The patients, who are women and children of the Mohammedan faith, are admitted free.

The Tash Conak Hospital.—This hospital was opened in 1884 as a general hospital with 150 free beds. The sanitary and other arrangements at this hospital are said to be excellent.

The Princess Ziness Khanum's Hospital.—This is a free hospital for women and children, with thirty beds. It was built by Ziness Khanum, a daughter of the celebrated Viceroy of Egypt, Mehmed Ali Pasha. Her first provision for its maintenance was lost, being invested in the Consolidés when the Turkish Government defaulted. The foundress then bequeathed to the hospital by will a further sum, represented by property in Egypt. The hospital is a two-

storied building of stone, situated on an elevated plateau in the midst of a beautiful garden. All the arrangements are declared to be excellent. It is stated to be the best hospital in Constantinople.

The Municipal Hospital at Pera and Galata.—This hospital was established by Imperial order, on the occasion of an outbreak of cholera, in 1865. On the cessation of the plague, it was converted into a hospital with fifty beds. The contributions towards its support from the municipality seem to be very irregular, for we learn that in 1885 the food, servants' wages, and medicines were provided for by the sister in charge, the municipality only repaying her by instalments at long intervals. The hospital is for male patients only, who are admitted free. Sufferers from contagious and chronic diseases are not received. The nurses are French Sisters of Charity, and are not paid. The expenditure amounts to about 15,000 francs annually.

The following ten hospitals are maintained by the members of foreign communities in Constantinople:—

The Armenian Hospital.—This institution was built in 1830 by a wealthy Armenian, and was placed in the hands of a national committee. It is a general hospital with thirty beds, free to members of the Gregorian Armenian community, but an entrance fee is expected from those who can afford it. Small-pox cases are not admitted. The income of the hospital is derived from voluntary contributions, and from the proceeds of a candle manufactory connected with the institution and situated in the grounds belonging to it. The annual expenditure amounts to about £T.8,000. There is an out-patients' department, and the hospital has several charitable institutions attached to it.

The Austro-Hungarian Hospital.—This hospital was built at Galata by the Austrian Government in 1836. It is a brick building containing fifty beds. All patients are required to pay, except very poor Austrian subjects. It is supported by patients' payments and by the Austrian Government.

The British Seamen's Hospital at Galata.—This hospital was erected in 1857 with a capacity of sixty beds. It is free to British seamen, but patients suffering from infectious diseases are expected to pay 4s. per diem. An English hospital-trained nurse superintends the nursing. The hospital is supported from a tonnage rate levied on all British ships arriving at Constantinople. The expenditure amounts to about £1,382 per annum.

The French Hospital.—This institution was first erected at Pera in 1719 for both sexes. It is managed by a special committee, and is in the charge of Sisters of Charity. It now contains fifty beds for paying patients. The payments vary from 2 to 3·50 francs in the general wards, and from 4 to 8 francs in single rooms. There is an isolated ward for small-pox. The nursing is by Sisters of Charity. The medical officer is the French naval doctor of the port. It is supported by patients' payments and from the rents of lands belonging to it. The annual expenditure amounts to 63,000 francs. There is an out-patients' department, where medical advice and medicine are given gratuitously.

The Geremia German-Swiss Hospital.—This hospital was erected in 1846 by a German society for patients of both sexes and of all nationalities. It contains thirty beds. The first buildings were destroyed by fire in 1870, when several persons lost their lives. Later, when the hospital was falling into disuse through indifferent management, Mons. Geremia came to its assistance, and, at his death, bequeathed a sum of money for its maintenance on the condition that the institution should bear his name. Patients pay 2s. per diem in the general wards, and 4s. in the private rooms. It is under the charge of Sisters of Charity. Neither the Sisters nor the medical staff receive any remuneration.

The German Hospital.—This hospital was erected by the German Government, and contains eighty beds for both sexes of all nationalities. The nursing is by German deaconesses. It is supported by patients' payments of fifteen piastres a day, and by a tax of ten piastres per month, levied on every member of the German colony.

The Greek Hospital.—This institution was erected outside the walls of Constantinople in 1836 for patients of the Greek faith. It is a general hospital with 350 beds. Patients pay an entrance fee of 3s. 6d. each. Patients in single rooms are charged 3s. 6d. per diem. There is an out-patients' department. Medicine is only given gratuitously to the very poor of the Greek faith. There are several charitable institutions in connection with this hospital.

The Italian Hospital.—This establishment was erected in 1838 by Chevalier Montiglio. It is a handsome structure built of stone, and situated upon a hill. It contains eighty beds for paying patients of both sexes. There are isolated wards for infectious diseases. Patients' payments vary from 4 to 8 francs per diem in the general wards, and 8 francs is charged in single

rooms. The nursing is by Italian Sisters of Charity, who are not paid. There is an out-patients' department where patients are treated gratuitously.

The Peace Memorial Hospital.—This institution was erected after the Crimean war, on ground granted to the French Sisters of Charity by Sultan Abdul Medjed, in recognition of their services during the war. It contains now fifty beds in the general wards, and twelve in the small-pox ward. There is also a department for the treatment of ophthalmic patients, who pay from 2½ to 5 francs per head per diem. It was endowed by the Sultan and by the French Government. There are several other charitable institutions belonging to it.

The Russian Hospital.—This is a stone building erected in 1875. It contains forty beds for patients of both sexes and all nationalities, who are treated free of charge. The nursing is by Sisters of Charity. It is supported by the Russian Government. Like the generality of Russian hospitals, it possesses barrack-pavilions for use during the summer.

ROUMANIA.

HISTORICAL.*

What were known until 1861 as the Danubian Principalities, but which have since become the Kingdom of Roumania, have a hospital system ancient and peculiar. It was in the thirteenth century that the electorates of Wallachia and Moldavia came into existence, and their charitable institutions still bear evident traces of Byzantine times. But while the ancient towers and ramparts which formed defences against Turks and Tartars remain picturesque portions of the hospital buildings, and while the Ephorates upon the one hand, and the hospitals of the Holy Spirit upon the other, recall some features of mediæval civilisation, the present arrangements of medical schools, professional staff, and management are in many respects identical with those of the great neighbouring empires of Austria and Russia.

The hospitals of Roumania are to be regarded first generally, and secondly as divided into two remarkable systems—those in

* This account is taken principally from a series of articles by Dr. S. H. Scheiber, of Bucharest, which appeared in the *Wiener Medic. Wochenschrift*, Band XVIII., pp. 1511 *et seq.*

Wallachia under the Ephorate, known as the Ephorate Hospitals, and those in Moldavia, named after St. Spiridon, or the Holy Spirit. As the former radiate from Bucharest, the capital town of the southern principality, as a centre, so the latter spread from Jassy, the capital of the eastern. None of these institutions receive paying patients. The entire health service is under one general inspector.

The kingdom possesses altogether seventy-two civil hospitals, with a service of 3,151 beds. There are in addition nine prison establishments with 155 beds, and certain orphanage and foundling institutions. The military lazarettos are nine in number, with accommodation for 1,000 sick soldiers, of whom just one-half, that is to say 500 men, can be received into the hospital in Bucharest. Estimating the population at 5,000,000 souls, it will be probably near the truth to reckon one hospital bed to 1,000 inhabitants. Of these seventy-two institutions just one-half, that is to say thirty-six, form the so-called district hospitals, and were formerly maintained by State funds and managed by the board of medicine for the provinces. With advancing decentralisation they have passed under the district councils. They number one to three for each district and contain from fifteen to eighty beds each. Among them are two infirmaries and two asylums. One asylum is at Marcuta in Wallachia, and falls under Ephorate management; the second is at Neanz in Moldavia, with eighty beds. Both of the infirmaries are in Moldavia; one is for men, with one hundred beds, whilst the other is for women, with fifty beds.

In Bucharest there is an orphanage maintained from the State Budget. In a country where it is not a crime to desert a child and leave it exposed, the police take charge of foundlings. Some 325 to 350 of these infants are farmed out in the suburbs of the town among an equal number of women, and are looked after by doctors, an overseer, and two midwives.

In Jassy there is a Foundling Home standing in connection with the Lying-in Institution, together with which it forms the Gregorian Institute. The whole is under the management of the Hospitals of St. Spiridon. There are twelve beds for lying-in women, and twenty to thirty children are kept in the wards under sixteen nurses. A further number of 130 to 160 children are boarded out among as many women.

The Jews maintain a series of charitable institutions for members of their own faith, and in a country where foundations originated by pious persons of wealth without families to leave their

fortunes to be open to all the sick and needy of whatever nationality and creed, there yet remains one curiously exclusive establishment. This is the Hospital of St. Spiridon in Jassy, where Hebrews are not admitted. The largest Jewish institution is in the same town, with 120 beds distributed over medical and surgical departments.

Finally the Brancovean Hospital, as standing apart from all others, should be mentioned. It is in Bucharest, has been named after its founder, and is endowed with special funds. An ephorate, consisting of the Metropolitan and two colleagues, manages the foundation. The buildings are handsome, and all needy applicants are admitted without distinction. There are two departments, medical and surgical, each having a first or senior (*Primararzt*), and a second or junior (*Sekundararzt*) medical officer, all of whom are doctors of medicine. These gentlemen are assisted by a surgical colleague, a *feldscheer*, who is entitled to prescribe, and to whom it falls to superintend the treatment of the sick in the absence of the second medical officer. The routine of this establishment presents certain important differences from that of the Ephorate hospitals proper. There are no gratuitous consultations, or out-patient service, and autopsies are only made when absolutely necessary, whereas in other institutions they are the invariable practice unless the body is specially claimed.

THE TWO GREAT SYSTEMS.

It now remains to consider the two great systems of hospitals obtaining in Roumania—those under the Ephorate and those of St. Spiridon,

Hospitals under the Ephorate.

The Ephorate has about ten hospitals, with a service of 1,220 beds, all located in Wallachia, and for their maintenance 113 landed estates and several forests, yielding an annual revenue of £62,500. As administrative head the Ephorate consists of three councillors named by Government, of whom one must be a medical man paid for his services, and the others members of boyar families related to the original founders. The lay staff consists of a director, several secretaries, clerks, and writers. Most of the larger institutions are subordinate to the Cretulesca, as a school for surgeons. There are

few special appliances, but admission to all military hospitals is open, and there is the right of conferring licenses to practise. Many of the rooms serve for lecture, examination, and committee purposes, and the various hospital departments as clinics. In connection with the Colta Hospital there is a series of teaching establishments with a chemical laboratory and post-mortem room. Taking these institutions seriatim, we have:—

The Central Colta Hospital, situated in the middle of Bucharest. It is an old one-storied building, erected in the form of a crescent, and although more like a ruin than a hospital, furnished with 225 beds. Stories have been recently added. It was founded in 1715 by Michael Cantacuzeno, the chief building being a tower. To the right of this is the dispensary, which serves for all the institutions of the order, and a new chemical laboratory erected at a cost of £2,825. From the courtyard seven staircases lead to the various wards on the upper story, forming the medical and surgical departments. Ventilation throughout is efficient, if we judge by the statistics of hospital fever. On the ground floor are placed the ophthalmic department, operating theatre, instrument room, lecture rooms, bath-house, and stores. The mortuary, with post-mortem and dissecting rooms, is in a building at the back. There is a museum of comparative and pathological anatomy containing 300 specimens, and one of physiological anatomy with 500. The staff in each of the three departments, medical, surgical, and ophthalmic, consists of a first and a second medical officer, with two or three so-called clinical assistants (*internes*). These are students of medicine who, by passing a series of examinations during two or three years, have obtained the so-called sub-surgeon's degree. They live in the building, take notes of cases, assist in the treatment of the sick, and receive salaries from the hospital to the amount of 25s. monthly, besides an allowance for board. Both the seniors are doctors of medicine, resident, and in receipt of salaries of £7 10s. and £12 10s. per month. In the morning the wards are visited by the first medical officer, accompanied by the rest of the staff and pupils, and later in the day by the second. As these gentlemen are, in virtue of their position, professors in the school, they impart clinical instruction. There are two or three persons, male and female, in attendance. The dispensing is done in part by students. The central and branch dispensaries are all in the immediate control of the Ephorate, as is also the diet. On the other hand, firewood and washing are done by contract, the latter

in such a way that for the washing of a single article at a steam laundry, a sum of fourpence is at present paid. It is to be remarked that the linen is the property of the contractor, who must provide a sufficiency for his period of contract lasting twelve years. For supplying these articles this person receives extra a sum of fourpence per head per day. When the contract expires, the Ephorate binds itself to take over the linen, if in good condition, at a valuation. Autopsies were formerly conducted by the senior and junior medical officers as in France, but recently a special prosector has been nominated. There are so-called free consultations, for the benefit of out-patients. During the summer the Ephorate sends also, at its own expense, for a period of three months, a number of poor chronic patients to the sulphur and iron baths at Olanesec and Calomanesci. These two spas belong to the Ephorate, and lie at a distance of eight stations from Bucharest.

The Colintina Hospital.—Second in size comes the Colintina Hospital, newly erected some five years ago. It forms the east wing of a large building outside the ramparts of Bucharest. There are two stories, and 184 beds, with Russian and other baths, and a branch dispensary. The wards are lighted by large windows, and are in winter warmed by heated air. The institution contains an extensive courtyard beautifully laid out.

The Philanthropy Hospital, with 160 beds and a branch dispensary, is also outside the ramparts.

There is a *Children's Hospital*, with 100 beds in a one-storied new building.

The Lying-in Hospital, with 45 beds, is lodged in a new one-storied building in a suburb. It forms a midwifery clinic for students and midwives. The senior medical officer is clinical professor, whilst the junior acts as teacher of midwives. Both are paid by the Ephorate, but not from the budget of the Ministry of Public Instruction, as in the case of all the other professors. Lectures are delivered in the Roumanian tongue. The staff also includes a head midwife, two resident midwives, three assistant surgeons, thirteen nurses and attendants, and a governor.

Pantaleimon Hospital.—In a village an hour's ride from Bucharest is the Pantaleimon Hospital, named after its patron saint. Fever is very common in the neighbourhood, and the marshes are to be drained. It is proposed to rebuild the institution at a cost of £44,265.

The Hospitals of St. Spiridon.

The hospitals of St. Spiridon, or the Holy Spirit, are Moldavian institutions.

Jassy Hospital.—The central one is in Jassy, with a remarkably ancient tower and buildings finely located. Possessing two stories with wards of ten beds each, there is accommodation for 300 patients in all. There are four departments—two medical, one surgical, and one syphilitic—each with first and second medical officers. The latter are resident, and are appointed for life. All these establishments are administered by an epitropy of three, nominated by Government.

The Branch Hospitals in Jassy include :—(a) One in the suburb Tatarasch, with thirty-one beds ; (b) another at Golia, for fifteen lunatics ; (c) the Institute Gregorius, whose senior medical officer is professor to the Jassy Midwives' Training School ; (d) the Institute Galata with forty-five beds, for the infirm, half an hour's distance outside the town.

The Branch Hospitals in the Provinces are :—(e) hospital in Roman, with fifty beds ; (f) hospital in Botushani, with fifty beds ; (g) hospital in Galatz, with forty-four beds ; (h) hospital in Tirgulis Ceni, with twenty beds ; (i) hospital in Fokshani, with twenty-eight beds ; (j) hospital in Birlat, with twenty beds ; (k) hospital in Hir lau, with twenty-four beds.

This system of hospitals has a service of 624 beds, with an annual income of £30,600.





CHAPTER XXX.

OTHER FOREIGN COUNTRIES.

ARGENTINA, OTHER SOUTH AMERICAN REPUBLICS (BRAZIL, URUGUAY, UNITED STATES OF COLOMBIA OR NEW GRANADA, BOLIVIA, PERU, CHILI), CHINA, EGYPT, AND PERSIA.

ARGENTINA.

HISTORICAL.



THE first hospitals in Buenos Ayres were instituted officially by Government Acts. In 1580 Don Juan de Saray, when fixing city boundaries, reserved a plot of ground on which to found a hospital, and a document of the same date speaks of "the hospital of Buenos Ayres." This hospital was under the care of the religious order of Bethlehemites in 1725. At the present time there are numerous hospitals in the capital of the Argentine Republic and these comprise many varieties and methods of support.

The concurrent establishment of the majority of these hospitals in the beginning of 1881 may be traced to one and the same cause.

A visit to Europe made by some medical men practising in Argentina served to stimulate and encourage them and their medical colleagues and countrymen to actively promote reforms and improvements in hospital administration throughout the Argentine Republic. The reform of existing systems and the founding of new institutions followed the visit to London in 1880

so rapidly as to mark an epoch in the history of hospitals throughout South America. It is notorious that up to the year 1880 charitable institutions in Buenos Ayres were in a most unsatisfactory state. The accommodation was insufficient, the buildings and arrangements were insanitary, and in the hospitals the mortality was very great. In this connection must be remembered the many changes of administration and the constant struggles for independence which have marked the history of Buenos Ayres until quite lately. In 1859 federation was accepted under conditions advantageous to the city, which then settled down to a more peaceful existence. Henceforward the citizens of all nationalities found it possible and necessary to devote time to internal reform. Hence by the year 1881, when some of the leading native medical men, eager for scientific advance, paid a visit to Europe during the sitting of the International Medical Congress in London, they rapidly became alive to the fact that administrative reform was imperative and that new methods of treatment must be promptly introduced into the hospitals. On their return they brought the important questions at issue before the profession and the public. That their representations and suggestions were respectively credited and adopted speaks well for the Republic, for this action necessitated the expenditure of a large sum of money, and entailed the demolition and entire rebuilding of the large General Hospital. But more and better results were to follow. All classes of the population and the representatives of the many nationalities which are to be found in Buenos Ayres were alike put upon their mettle. The General Hospital only sufficing to meet the wants of a portion of the citizens, an era of hospital building set in, and many native and foreign institutions were rapidly established. Amongst these may be mentioned the native hospitals of Rividavia, San Roque, and the Militar. The principal foreign hospitals include those of England, Germany, France, Italy, and Spain.

There seems to have been an agreement by common consent that the pavilion system for hospitals is the best, and hence most of the new hospitals in Buenos Ayres are so built. The French and German hospitals are single-story buildings of this kind. The Italian hospital consists of a single block of four stories, whilst the Spanish hospital is built in a quadrangular form with a closed verandah running round it, whereby the ventilation and lighting are much improved.

SOURCES OF INCOME AND REVENUE.

Native and foreign hospitals taken collectively derive their revenues from one or all of the following sources :

- (i.) The State and municipality.
- (ii.) The subscriptions of private persons and societies.
- (iii.) Legacies and entertainments.
- (iv.) Patients' payments.

Of these methods of support, the first are explained elsewhere ; the second and third are common to most systems and need not be further described here ; whilst the fourth is based upon the American and foreign plans, except that all hospitals receive fees from patients varying in amount according to the hospital or the circumstances of the applicant.

Although details are wanting except in the case of the British Hospital, there is evidence to show that the various nationalities conduct their institutions upon the same principles as those which are found to prevail in the country of their birth. The nursing in these hospitals is carried on by the Sisters of religious communities and by trained lay nurses.

'ASISTENCIA PUBLICA.'

All charitable institutions of the municipality are under the administration of the 'Asistencia Publica,' a municipal institution similar to that of Paris. It consists of a commission of hygiene, and of a body of district doctors with a medical director as president. The central office (formerly a hospital for women) includes the official residence of the director, a public dispensary, and a depôt for ambulance cars. The district doctors are twenty-eight in number, and are paid by the municipality. They visit the sick poor in their own homes, and act as sanitary inspectors and public vaccinators. The number of persons vaccinated during 1888 was 34,338, whilst 8,331 patients were visited at their own homes by the doctors during the year. This system of medical visitation helps to relieve the overcrowded condition of the hospitals. Indeed the dispensary staff, and that of the hospitals, work together admirably, and much of the dispensing for the patients attended by

the district doctors is performed at the hospitals. A scheme is already in operation which is intended to supplant this medical service. Casas de Socorro, modelled in some respects after those of Madrid, have already been instituted to the number of seven. They are by no means complete in their arrangements, and in the opinion of those competent to judge will form a very inefficient substitute for the district medical service, though they might prove very valuable adjuncts to it.

Connected with the 'Asistencia Publica' and under its management are pathological laboratories and a department for the sanitary inspection of dwelling-houses and other buildings. Many new institutions are also projected in the immediate future.

The General or de Clinicas Hospital is the most important hospital in Buenos Ayres. It was so called on its reconstruction in 1881, in compliment to its founders, the medical faculty of the city. It is a State institution to which is attached the State school of medicine. It is built in pavilion style, and has accommodation for 250 patients. The institutions ranking next in order of importance are under municipal direction, and are five in number: namely, the Hospital San Roque, the Casa de Aislamiento, the Hospital de Cronicos, the Hospicio de las Mercedes (which is also a lunatic asylum), and the Hospital Misto Invalidos.

These five institutions are managed upon almost identical lines, so that a brief account of two of them, the Hospital de Cronicos and the Hospital San Roque, will suffice.

The Hospital de Cronicos formerly went by the title of the General Hospital for Men. The present name is misleading, as the institution still maintains its original character and accepts acute cases, whilst it continues to transfer patients suffering from chronic complaints to the Hospicio de las Mercedes, that is, to the asylum for lunatics and idiots, which has a department for chronic patients.

The hygiene of the institution is reported to be satisfactory, but serious evils arise from the overcrowding which prevails here as elsewhere.

During the year 1888, 428 patients were treated in the hospital, day labourers of Italian nationality forming the largest proportion of the inmates.

The hospital greatly benefits the inhabitants of the poor and populous district in which it is situated, and in the out-patients' department 6,480 patients were treated during the year.

The nursing is carried out by the sisters of a religious community, the name of which is not stated.

The expenditure in the Hospital de Cronicos in 1888 was 44,918 pesos, of which the following are the principal items :—

	pesos					
Milk	912
Bread	1,386
Meat	2,098
Provisions, clothing, &c.	33,283
General expenses	2,551
Drugs	2,024
Ice	261
Minor expenses	2,403
Total	44,918

The Hospital San Roque, which is in effect a general hospital, consists of twelve wards, and has accommodation for 288 patients. This number, however, is frequently exceeded. The general hygienic condition of the hospital is stated to be good, though many necessary improvements in the ventilation and other matters are projected. The number of wards has lately been augmented by four additional pavilion wards, constructed on modern principles. Two of these are destined for criminal patients, of whom a large number are consigned to this hospital, and the remaining two wards are for women and children.

The percentage of mortality is only 9·8, which is the smallest death-rate appertaining to any of the hospitals under municipal direction, notwithstanding the fact that many fatal accident cases are brought into this hospital from the port.

Connected with the hospital is an out-patients' department, which is largely frequented, 7,400 patients availing themselves of its benefits in the year 1888.

Most of the native hospitals in Buenos Ayres, in common with this institution, are much resorted to by foreigners, but Italians usually form the largest proportion of the inmates. In 1888 there were 1,387 patients of that nationality treated in the hospital, compared with 1,082 Argentines admitted.

The total expenditure for the year 1888, in the Hospital San Roque, amounted to 203,426 pesos, or, say, £42,685, distributed in the following manner :—

Hospital of San Roque, Buenos Ayres. Expenditure in 1888.

						pesos
Bread	...	...	...	...	...	4,892
Meat	...	...	...	...	...	7,051
Milk	...	...	...	...	...	3,812
Provisions, clothing, &c.	...	...	...	...	...	70,371
Furniture	...	...	...	...	...	5,824
Instruments	...	...	...	...	...	2,391
Gas	...	...	...	...	...	1,483
Drugs, &c.	...	...	...	...	...	43,872
Cleansing and repairs	...	...	...	...	...	4,905
Minor expenses	...	...	...	...	...	9,154
Salaries	...	...	...	...	...	42,825
Laundry	...	...	...	...	...	6,328
Ice	...	...	...	...	...	518
Total	...	...	...	...	...	203,426

THE BRITISH HOSPITAL.

The present buildings of the British Hospital were erected in 1887, though the institution was first established in 1879, the original objects being still maintained. The new institution, however, is on a larger scale than the old one.

It is situated on a gentle declivity, with present accommodation for about fifty or sixty patients and abundant ground space for future enlargement. Whilst stipulating that provision must in all cases first be made for British subjects, the hospital asserts its claim to an international character by admitting the sick of all nations and creeds. Of 857 patients admitted in one year, 592 were British, the remainder being made up by 54 citizens of the United States, 33 of Germany, 27 of Sweden, 13 of Argentina, 5 of France, and 133 of other countries, including Africa, Malta, and Japan. Patients are admitted by subscribers' letters and under other arrangements, but payment is required for all. The hospital is managed by a committee appointed on the British system. This committee consists of seven members, with a reserve list of three others who are nominated to fill up vacancies on the committee proper, and act in cases of necessity. Three members retire by lot at the end of their first year of office, and the remaining four at the expiration of their second year. All are eligible for re-election. At the first

meeting of the committee in each year, the chairman, secretary, and treasurer are elected. The British Consul, and the pastors of the various British congregations and denominations, are also *ex-officio* members of the committee. The committee has power to make bye-laws for the internal management of the hospital, and promulgates from time to time such further instructions for the government of the medical and domestic departments as circumstances may render necessary. In all relations with third parties, requiring contract, arbitration, or legal arrangement, the British Consul, in conjunction with the chairman and secretary of the committee of management for the time being, is empowered to act on behalf of the hospital.

At the request of the committee, the British medical practitioners qualified and received (that is, registered to practise in Argentina) form a medical board and elect one visiting physician and one visiting surgeon from amongst themselves. These two officers are *ex-officio* members of the committee of management, and every member of the medical board has the privilege to vote at general meetings like any other governor. A resident medical officer is appointed by the committee, and acts under the medical direction of the visiting medical staff. He receives a salary of £200 for the first year, increasing to £250 in the third year, with an allowance of £20 per annum in lieu of beer or wine. The resident medical officer is not allowed to engage in private practice, and, in addition to the usual duties of such a post, he is required to superintend the dispensing of medicines, and is forbidden to delegate to an assistant the compounding of the more powerful drugs unless permission has been previously obtained from the authorities. In all that affects the discipline and well-being of the hospital, the resident medical officer is considered as representing the committee. The general household management is vested in this officer subject to the committee, and all orders for drugs, stores, &c. must pass through his hands. The supplies required are entered in a book, and any orders for an amount exceeding 100 pesos from any one firm have to be first approved by the committee. In the case of drugs ordered from Europe even greater formalities are required. In 1887 the National Government exempted the hospital from paying duty on imported drugs.

On the male staff, besides the medical officer there is a superintendent whose duty it is to make himself generally useful to the

committee in conducting their business, to keep the books, and furnish any returns that the committee may require. He is responsible for the cleanliness of all parts of the building not under the doctor or matron, and for the good order of the grounds, and he superintends the male servants in the performance of their duties.

The nursing staff consists of a matron and five nurses, who as a rule have received their training in England. The matron is the recognised head of the nursing department of the hospital, but she is responsible to the resident medical officer. She must see to the proper cooking of all food, and has control of the female servants, and the charge of the linen.

The British Hospital derives its revenue from voluntary contributions, legacies, and patients' fees. These voluntary sources include the proceeds of amateur dramatic club entertainments, amateur concerts, bazaars, circuses, and the like, which together make an income of 52,314 pesos (say £10,462), as shown in the following table:—

*British Hospital, Buenos Ayres. Receipts from various sources,
1888–1889.*

				pesos
Interest on Hunt Legacy Fund	...	...	...	62
Interest on Bazaar Fund (1870)	...	...	...	629
Fees from paying patients	...	...	...	17,265
Dues from shipping	...	...	...	13,501
Subscriptions	...	...	...	17,590
Donations and benefits	...	...	...	3,267
Total	...	...	...	52,314

It will be seen that the English in Buenos Ayres carry out the same principles of voluntary charity which are so universal in their mother country. So much is this the case that, as the annual report shows, the hospital receives many gifts of clothing, newspapers, books, plants, drugs, and toys, and, at Christmas, seasonable presents of all kinds are received in large quantities.

The scale of patients' payments varies according to the circumstances of each case. An annual subscriber of 50 pesos has the privilege of recommending one patient free of charge, but he must be able to satisfy the authorities that the patient is unable to defray expenses. A discount of ten per cent. is allowed to

members of the Southern Railway Sick Fund. A large number of sailors and seamen are benefited by this institution, and these are paid for by vessels contracting as soon as they enter port. Steamers pay at the rate of 1 peso per man per crew, and sailing vessels at the rate of 2 pesos per man per crew. If a vessel fails to contract on its arrival in port, the owners have to pay 1.80 peso per diem per patient admitted to the general wards, but all sailors have to pay the scale rates if they occupy private rooms. The general scale of charges is as follows:—in the general wards 2 pesos daily, or about 8s.; in private rooms 6.50 pesos or about 26s. per diem.

Out-patients can be treated if recommended by subscribers, or at the discretion of the resident medical officer, who is empowered to make a charge not exceeding 1 peso per patient for each consultation. The out-patients are not, however, very numerous. In 1888 602 were treated; in 1889 the number increased to 668, and in the first three months of 1890 there was a further increase amounting to 183 per cent.

The expenditure in this hospital for the year 1888–89 was 51,683 pesos, distributed as follows:—

British Hospital, Buenos Ayres. Expenditure in the year 1888–89.

					pesos
General charges	...	...	...	...	3,840
Medical account	...	...	...	...	2,146
Interest	...	...	...	...	2,780
Provisions	...	...	...	...	18,188
Repairs	...	...	...	...	611
Furniture	...	...	...	...	2,335
Fuel and light	...	...	...	...	4,003
Wages	...	...	...	...	12,577
Drugs and instruments	...	...	...	...	4,773
Fire Insurance	...	...	...	...	430
Total	...	...	...	...	51,683

OTHER SOUTH AMERICAN REPUBLICS.

The republics of South America possess hospitals, but, taken as a whole, they are far behind those of Europe and the United States. They are maintained, with the exception of a few hospitals esta-

blished for the reception of Englishmen and foreigners, almost entirely by the State, and many of them are necessarily small and unimportant.

In Brazil, Bolivia, Chili, and Peru there are medical schools, but although a hospital was founded so long ago as 1726 at Monte Video, the republic of Uruguay possesses no medical school at the present day.

Most of the hospitals in the South American republics are under the management of commissions appointed by the Government, the functions of which include hygiene, public health, and charitable institutions generally. These commissions issue periodical reports, but, so far as we have been able to judge, they do not seem to exercise, on the whole, any real, much less any adequate control over the medical institutions, nor does their administration seem to secure as efficient management as could be wished.

BRAZIL.

The hospital service throughout the republic of Brazil is very unequal, frequently inadequate, and in many places apparently not very popular.

The principal hospital of Rio de Janeiro, the capital, is the Santa Casa da Misericórdia, a large institution, with accommodation for about 1,000 patients. It is constructed in the form of a quadrangle, and has a garden in the centre. The entrances are at the corners of the square by staircases. The hospital is on the corridor system, and some of the corridors are provided with balconies overlooking the gardens. The Misericórdia is built in three stories, and connected with the establishment is a chapel, a home for forty Sisters of Mercy, and a meteorological observatory. The wards number twenty in all, and contain collectively 800 to 1,000 beds, but the whole accommodation is not usually taken up. Patients come from every province of Brazil, and there are also frequently to be found representatives of nearly every country of the globe. There is no operation theatre, and operations have unfortunately to be performed in small rooms adjacent to the wards.

In a neighbouring building, called the Old Hospital, are the department for women and children, a dispensary, a laboratory, kitchens, servants' quarters, laundry, and other dependencies. A central division separates the hospital gardens into two equal parts.

Two wards in the medical department and one in the surgical are devoted to the purposes of the clinical schools. There is really no maternity department, although there is a small lying-in ward which contains five beds but does not seem to be put in requisition. The bedsteads are mostly of iron, with tapestry hangings and bedding of excellent quality. The cleanliness maintained throughout is most creditable.

There are various other hospitals in Rio de Janeiro, many of which are of a private character. There is a military hospital and also one for sailors. The latter is on the Island das Cabras, in a building that was at one time a fortress and later a Jesuit college. It contains 130 beds, and room can be found for 100 additional beds when required. The institution is under a professor of the Naval Sanitary Board, and includes two departments, medical and surgical, each with a chief physician having two assistants under him. There are in addition four clinical clerks receiving board and lodging in the establishment, besides others who render assistance in the schools in return for board and lodging.

Rio de Janeiro has also a homœopathic hospital of St. João Baptista de Nietheroy.

The Hospital of Rio Grande receives about 100 cases annually, which are treated by the district medical officer at the expense of the provincial chest.

A hospital is in course of construction, or has been recently opened, at Oyres, the capital of the province of Pianhy.

The Hospital da Santa Casa da Misericordia, in Para, received 337 patients during the year 1889. The total receipts amounted to 20,630,160 reis, the expenditure to 19,444,750 reis. The Charity Hospital, in the province of Gozaz, averaged sixteen cases a month. Receipts for the year amounted to 1,229,815 reis, and the outlay to 1,140,210 reis.

The province of Pernambuco has a medical board of three members, who act as sanitary inspectors to the public, and a committee of four, who discharge like duties in respect to the army.

Pernambuco contains the following hospitals: A charity hospital, a lazarette hospital, a regimental or military hospital and an English hospital, in the district of Boa Vista; a hospital belonging to the Order of Carmo, and another belonging to the Order of San Francisco, in the district of San Antonio; and a police hospital and a private hospital, also in the district of San Antonio.

In Olinda there are the Hospital da Misericórdia, the Port Hospital, and a foundling hospital.

Income and Expenditure.

From the accounts of the Ministry of Finance it appears that there were voted for the Imperial Academy of Medicine, 2,000,000 reis, and for lazarettos, 2,000,000 reis. Of the total expenditure authorised by the Ministry of Marine, a sum of 42,823,960 reis was set apart for the hospitals, and of that authorised by the Ministry of War, 111,619,800 reis were for hospitals. A further sum of 85,100,000 reis was granted by the State for schools of medicine, and 14,400,000 reis for vaccination. The Imperial Academy of Medicine also received 2,000,000 reis from the municipality of Rio de Janeiro.

URUGUAY.

The hospitals of this republic are under the control of the Council of Public Health, which consists of four members nominated by the Government, who elect their own secretary and president. The members are unpaid. The duties of the Council include the enforcement of sanitary measures, the collection of statistics for the whole republic, and the superintendence of all hospitals, prisons, and similar institutions. The chief hospital is called the Charity Hospital, and is located in the southern quarter of Monte Video, on a site fairly well adapted for the purpose. It is managed by a Board of Beneficencia Pública, and in addition to lunatics and foundlings, admits patients suffering from all diseases. The hospital contains 300 beds, and it will be understood that the medical staff, being limited to three, is found to be far too small for the requirements of the institution. It is reported that the autopsy room is also used for operations; that there is no dispensary; and that the supply of instruments is deficient. In connection with this hospital, but situated some distance from Monte Video, a provisional asylum has been erected. The revenues are derived from landed estates, legacies, charitable contributions, and the proceeds of a lottery which is reported to be very lucrative.

THE UNITED STATES OF COLOMBIA OR NEW GRANADA.

Two boards are charged with the duty of supervising the medical and other charitable relief in this State ; one looks after the distribution of medicine and the provision of medical relief at the patients' own homes, whilst the other presides over the management of the public charitable institutions. Some idea of the carelessness which prevails in regard to the needs of the poor may be gathered from the fact that, although the Society of Beneficencia had a capital sum of 840,000 pesos at its command, two-thirds of which were destined for hospital purposes, and there was, in addition, available for the relief of sick people a revenue of 81,000 pesos, and, further, that a handsome estate had been bequeathed to the hospitals by a charitable lady, six years were allowed to elapse without any steps being taken to provide additional hospital accommodation. This cruel delay, amounting probably to a serious breach of trust, was allowed to occur, although the poor, as the Government were aware, had to submit to grievous hardships and suffering in consequence of their inability to obtain admission to the existing hospitals, all of which were at the time more than overcrowded.

Two of the oldest hospitals are named respectively San Juan de Dios and San Francisco de Borga. The former hospital was established in 1595, in which year Philip II. of Spain licensed the friars of San Juan de Dios to proceed to America to found hospitals, and by Royal decree of 1630 the institution passed under their charge. The oldest hospital of this State is, however, named the hospital of San Pedro, and was founded in 1564, when a cathedral was erected in the city of Bogota—now the capital of the republic—which subsequently became an institution for the poor. Archbishop Barrios, who had taken the initiative in founding this institution, died in 1569, and his successors became patrons of the hospital. This establishment has now been removed to premises outside the city, but it served the purposes of a hospital for a period of 159 years.

Nearly all the cities and some of the provinces in the State contain hospitals. Every year the *Gaceta Oficial* of Bogota contains reports of the working of the various institutions throughout the republic. These reports are sent by the governors of the provinces, and are addressed to the members of the provincial council. They

set forth any points of importance in the history and management of the various establishments which have been reported to the governors by the responsible managers of the various institutions.

BOLIVIA.

The hospitals in this republic are under a junta or council appointed by the Government. They are maintained by grants made by the councils of the various provinces which contain hospitals, but none of the hospitals are of sufficient importance to warrant a detailed description. This may be gathered from the fact that the grants made for hospital purposes by the various States vary from about £4,000 to £250 per annum.

PERU.

In this republic there are two boards charged with the duty of managing the committee's medical and other charities. The first controls the permanent Junta of Beneficencia, and includes a director, the major-domos of the hospitals of San Andras and Santa Ana, and of the provision for the insane, the inspectors of the college of Santa Cruz, of the orphanage, the lying-in asylum, the cemetery, the second orphanage, the Hospital del Refugio, the Hospices of the Immaculate Conception, Jesus Nazareno, Guadeloupe, and Señora Navarrete, and of the deacon or head of the faculty of medicine.

The second board is entitled the Society of Beneficencia, and consists of a chairman and twenty-six members, administered by a junta of direction, with a director, vice-director, the major-domo of the hospital, the inspector of the cemetery, a treasurer, and a secretary. The largest hospital is that of San Andras, which relieved 9,110 patients during the last year for which returns have been received. It has a staff of four physicians, two surgeons, and two assistant-surgeons, six resident and six non-resident pupils, and forty-six other officials. The next largest hospital is that of Santa Ana, which relieves about 8,000 in-patients. The medical and other staff is almost identical with that at San Andras. The Hospital of Guadeloupe relieves about 3,000 in-patients annually.

In addition to these general hospitals there is a lying-in hospital of about ten beds, which has a lady on its medical staff, a hospital for incurables of about sixty beds, and a hospital for the insane with about 200 beds. The nursing of these institutions is said to

be efficiently done by Sisters of Mercy, with the assistance of male attendants. The National University in Lima and some of the provincial universities grant medical degrees.

CHILI.

Unlike the other South American republics, Chili seems to have at present no organisation governing the general administration or management of its hospitals and asylums. These institutions appear to be almost entirely in the hands of Sisters of Mercy, and although it has been difficult to get recent information, we are forced to conclude, from the evidence which has reached us, that there is no regulation, properly so called, for the use of the hospitals' service in any part of the country. Everywhere there is an absence of rules and method, and caprice seems to dominate everywhere. Sisters of Mercy superintend the sick, the hours of visiting, and the dieting; but a high official thus reports, apparently in proof of the discomfort attending illness in private houses in Chili: "It is sufficient to remark that in the sick-rooms for the rich the Sisters of Mercy do not nurse the patients; otherwise none of the arrangements call for special remark."

The most important hospital in the republic is that of San Vincent de Paul, in Santiago. It is well situated, the courtyards being spacious and the wards well ventilated and in excellent order. It contains six hundred beds, the larger wards holding thirty-four beds and the smaller ones twenty-six beds. The floors are of asphalté or brick, and the baths are very unsuitable for patients, as well as inconveniently situated. No proper arrangements appear to have been made for heating the wards, but the dispensary and kitchens leave little to be desired. The hospital contains neither an operation theatre nor a *post-mortem* room. The Sisters of Mercy in charge receive food and a salary of £20 per annum each. It is reported that the medical service is numerically weak, and consequently inefficient, and that the whole institution sadly lacks method.

We have merely given these details to afford an insight into the state of affairs which generally prevails throughout the hospitals of Chili. What Chili appears to need most is not more hospital buildings, but the institution of a hospital commission presided over by a capable and experienced man, vested with full authority to enforce the necessary reforms and blessed with sufficient energy to

secure their speedy adoption. The republic contains thirty-seven hospitals, which relieve about 45,000 in-patients every year. There are twenty-six dispensaries attended by about 250,000 people annually, a lunatic asylum, and twenty institutions for foundlings. We gather that for some reason the hospitals are very unpopular among the female population, the number of women admitted to treatment having diminished by nearly 1,000 in the year for which we have received returns.

The lot of a medical student in the republic of Chili is not an enviable one, seeing that his curriculum extends for a period of six years, and that it does not appear to be too easy to obtain either adequate teaching or facility to acquire a thorough knowledge of the practice of medicine and surgery.

CHINA.

There are no hospitals properly so called of native foundation in China, the nearest approach to such institutions being refuges for the blind and destitute aged, and lazar houses in certain districts where leprosy prevails. Nevertheless there is a large number of institutions for the reception of Chinese patients, which owe their origin for the most part to the efforts of foreign missionary societies of various denominations. The first building of the kind was erected at Canton in 1838. The movement commenced by the establishment of dispensaries, the sphere of which was gradually extended by the admission of in-patients, principally surgical cases requiring operation. It seems to be the general custom in China for a patient to bring his own attendant, and in many cases to provide his bedding and food also.

There are vaccination establishments and travelling vaccinators in many cities and districts of China, vaccination being now largely resorted to in that country. The practice was introduced by Dr. Pearson, a surgeon in the service of the East India Company in 1805. There are no medical schools in China, but at the Tung Wên College at Peking lectures are given on anatomy and physiology, and the students attend the surgical practice at the Mission Hospital. Dissection is strictly forbidden.

CANTON AND FATSHAN.

The Hospital at Canton is in connection with the American Medical Mission in China, and was established in 1836 by the Rev. Peter Parker, M.D., on behalf of the American Board of Missions. It was originally intended for ophthalmic cases, but was soon converted into a general hospital. It is managed by a committee elected by the subscribers. A medical class has been held for many years in connection with the hospital. The institution, which is unendowed, is supported by subscriptions from foreign merchants, Chinese officials, merchants, and patients' payments. The patients are of both sexes, and usually bring their own attendants; but there are a few nurses, both male and female, who have had some training in the hospital. The salary of the medical officer is paid by the missionary society which sends him out.

The Medical Missionary Hospital at Fatshan was established by a surgeon sent out for the purpose by the Wesleyan Missionary Society in 1881. It is managed by the surgeon in charge on behalf of the mission. The average number of patients is about 50. There are classes for medical students, who receive their training from the medical officer, and are bound to the hospital for three years. The instruction includes anatomy, by dissection of such animals as pigs and dogs, chemistry, by practical demonstration, and regular systematic instruction in all the more important branches of medical education. Courses of three months' duration at a moderate charge are also held on special subjects, such as vaccination, dentistry, and diseases of the eye and skin, for native practitioners and others.

The resident medical staff consists of an apothecary and clerks and dressers, averaging one clerk or dresser to every five patients. The dressing is done by the students, and the nursing and cooking for the patients by their relatives or friends. There is a Chinese matron, who has been instructed by the medical officer.

SHANGHAI.

There are five hospitals in Shanghai.

The General Hospital is administered by a board of governors, three of whom are elected annually from the consular body, and the remaining four by the ratepayers. The nursing is performed by

Catholic Sisters who are in charge of the hospital. The institution is maintained chiefly by patients' payments, but a municipal grant is annually made in aid of its support, and free beds for the use of destitute foreigners are maintained in it, out of a charitable fund collected for the purpose some years ago by the ladies of Shanghai.

The London Mission Hospital is maintained by voluntary subscriptions collected from the foreign residents. It is for Chinese patients only.

The Hospital of St. Luke is maintained by the American Episcopal Mission, and by voluntary subscriptions.

The Gutylaff Hospital is for the blind, and has an endowment in the shape of a fund bequeathed for its support.

The Margaret Williamson Hospital is for women, and is maintained by American subscribers, the nursing being undertaken by missionary ladies attached to the institution.

TIENTSIN.

The London Mission Hospital at Tientsin was erected on ground belonging to the London Missionary Society with funds generously provided by His Excellency the Viceroy Li Hung Chang, who further contributed £40 monthly towards its maintenance. The rest of the sum required is made up by voluntary payments by patients, and from the funds of the mission. There is a resident physician who has ten students under him. They are in the receipt of pay from the Chinese Government, and as soon as they have passed the medical examination, they are drafted off to the different military stations and ships of war. Only male patients are received.

The Isabella Fisher Hospital for female patients was built ten years ago through the munificence of an American lady. It is under the charge of a lady doctor who is attached to the American Mission Board. The nurses are Chinese women who are paid and trained by the lady in charge.

The Roman Catholic Hospital was built by the Lazarist Mission, under whose direction and support it remains. Patients of all classes are admitted, and this is the only hospital in Tientsin where Europeans are received. When necessary the medical practitioners of the port give their assistance, but as a rule the nursing sisters attend to the cases without medical aid.

HANKOW.

There are three mission hospitals for Chinese patients in Hankow, but foreigners are admitted on payment into the first and last of the three.

The London Mission Hospital is in part supported by the mission, and in part by voluntary subscriptions by residents. The nurses are paid male attendants.

The American Episcopal Hospital is in connection with the American mission and is supported by it out of funds from America. The nursing is done by paid male attendants.

The Catholic Hospital is in connection with the Italian Mission, and is supported chiefly by subscriptions from the community. The nursing is in charge of the Italian Sisters.

PEKIN.

The Missionary Hospital at Peking was established by Dr. Lockhart in connection with the London Missionary Society in 1861. The accommodation for in-patients is not large, and the wards are principally reserved for accident and surgical cases requiring operations. The patients bring their own bedding and generally supply their own food. They must in each case be accompanied by a relative or friend to act as nurse and cook. The number of out-patients resorting to this hospital has averaged 100 per diem during twenty-five years, and about 20,000 different cases are prescribed for during the year.

KIUKIANG.

At Kiukiang there is a hospital in connection with the American Mission. It is managed by two lady doctors, and is maintained from America.

CHINKIANG.

There is a native hospital here under the medical practitioner of the port. It is supported from missionary funds, aided by voluntary subscription. The nursing is done by paid native assistants.

HANGCHOW.

There is a large and flourishing hospital at Hangchow, founded and chiefly supported by the Church Missionary Society, aided by subscriptions from Shanghai.

NINGPO.

The French Mission has established a native hospital here, the patients being attended by Sisters of Charity attached to the mission.

WENCHOW.

In Wenchow there is a small hospital maintained and managed by the China Inland Mission, with which it is connected.

FOUCHOW.

There is a small hospital for natives under the charge of the resident medical practitioner at Fouchow. It was founded and is supported by the community.

AMOY.

In Amoy there is a hospital governed by the heads of the three leading missions there, and supported by the community. There is also a small hospital for foreigners managed by the resident medical practitioner and supported by the payments of patients.

SWATOW.

Swatow has a hospital founded and maintained by the Scotch Missionary Society, and also a small hospital for foreigners under the resident doctor.

FORMOSA.

There is a missionary hospital at Tamsay attended by the resident practitioner, and maintained by voluntary contributions. There is also a hospital at Takao.

EGYPT.

HISTORICAL.

The early history of hospitals and asylums in Egypt is obscure. It would appear, however, that they were semi-benevolent institutions maintained by small endowments left by pious Moslems. The largest of these institutions was the Maristan, built and endowed by Sultan Kalaoon in A.D. 1283. This great institution was in fact a large general hospital in which provision was made for the separa-

tion of patients suffering from various diseases. It was for the treatment of both sexes of every degree.

The various religious communities have from time immemorial made provision for their sick and infirm, but no authentic records are obtainable which show that special establishments existed for the treatment of infectious diseases. The three existing hospitals in Egypt are of two kinds: (1) those maintained by Government, and (2) those instituted and maintained by private benevolence and religious bodies.

Those maintained by Government include general, military, lunatic, and maternity hospitals. The cost of maintenance is borne by the State, but patients able to pay are charged a small sum daily while in the hospitals. Some of the hospitals instituted by religious and benevolent bodies have considerable endowments. The Government hospitals are governed by State regulations, whilst the others have their own regulations subject to Government supervision. At the present time all the chief towns in Egypt, numbering twenty-six, have each a native hospital under Government management. There are also foreign hospitals at the various Egyptian ports, including Port Said, Alexandria, and Cairo.

CAIRO.

The foreign hospitals in Cairo comprise those of England, Germany, Austro-Hungary, and the so-called European Hospital.

The English Hospital is purely military, and has accommodation for 600 patients. It occupies what was formerly a palace in the Citadel of Cairo. The gorgeous decorations still remain, and from balconies which run round the building beautiful views of the city are to be seen. The nursing is undertaken by English Sisters.

The German Hospital contains thirty beds, and admits paying patients only. The nursing is in the hands of German Deaconesses.

The Austro-Hungarian Hospital has accommodation for twenty patients, all of whom pay. The nursing is undertaken by Sœurs de Charité.

The European Hospital is also for paying patients. It contains about forty beds, and the Sœurs de Charité undertake the whole of the nursing.

The two native hospitals are the Military Hospital at Abbessiyeh with 200 beds, and the Kasr-el-Aini Hospital in Cairo.

The *Kasr-el-Aini* Hospital, like all Egyptian hospitals, is under Government management. It was originally a barrack, but was converted into a hospital. It consists of two stories, and has accommodation for 420 patients. The wards contain 20 beds in each, and are 5 mètres (about 16 ft.) high. Patients of both sexes are received. The women's side or harem is entirely separate from the male wards. There is a surgery for males and females in common, where wounds are dressed. There is a resident medical officer in the hospital, which is also connected with a medical school for students—the only one in Egypt. The hospital has no endowment, and the expenditure, which amounts to about £11,000 per annum, is defrayed by the Sanitary Department of the Egyptian Government. The nursing is under the superintendence of six English lady nurses, who have thirty-four male and thirty-five female attendants under them. In charge of each ward as head nurse is a Mussulman female doctor, educated in the medical school but now employed solely as a nurse.

The female nurses, who are Mussulman girls, are found to be quick and intelligent. These attendants receive wages of from 16s. to 30s. a month. The English nurses' salaries amount to from £8 to £12 per month, without board. They, in common with all other officials employed by the Egyptian Government, are entitled to pensions. There is now a Nurses' Home for the English nurses.

Drainage System.—The earth-closet system is adopted, and bath and other waste water runs into a cesspool at some distance off and filters eventually into a subsoil waste.

ALEXANDRIA.

Alexandria has a native hospital for both sexes, with accommodation for 200 patients. It was originally a barrack, to which has been added a large single-storied pavilion. The nurses are native men and women. In addition to the native hospital, Alexandria contains a German and a Greek hospital. The German institution has accommodation for sixty beds, and also a large out-patients' department. The Greek hospital is a fine building which was completed in 1885. The attendants on the sick are Greeks, but they are under the superintendence of English lady nurses.

PORT SAID.

The Lady Strangford Hospital at Port Said was established in 1885. It contains about twenty beds for paying patients. The nurses are all English ladies.

PERSIA.

HISTORICAL.

It appears that, although at the present time Persia has only three native hospitals, in earlier times all the chief cities of that country possessed such institutions, which were called in ancient Persian *Māristān*, a title corresponding to the French "*Maison de Santé*." Only the sick poor not suffering from contagious diseases were admitted, and the idea in time of epidemic of erecting establishments for the treatment and care of sufferers from it does not seem to have been entertained.

The hospitals mostly owed their origin to the munificence of kings, princes, viziers, and other men of importance, and on completion were endowed with funds arising from property left on trust for charitable purposes, or with lands. A new king or chan e of Government frequently meant the destruction of many of these institutions, their lands and revenues being appropriated by the new powers. There is only one hospital remaining which draws its revenues from the sources explained above, namely the Darush Shafā Hospital at Meshed. It possesses considerable property, having been fortunate in escaping the vicissitudes attendant on such institutions in Persia.

There are at the present time native hospitals which have been established by members of the reigning Royal Family. The only foreign hospital existing in the country is the outcome of the medical department of the American Missionary Society in Aroo-miah. The inadequacy of a dispensary to meet the wants of the sick poor, especially in surgical cases, was so apparent that a charitable American gentleman supplied half the sum necessary to erect a hospital, the remainder being contributed by individuals and charitable societies. The English Church Missionary Society possesses one or two rooms which can be used for hospital purposes if necessary, but no regular English establishment exists in Persia.

THE DARUSH SHAFÁ HOSPITAL AT MESHED.

This hospital is for both sexes and is endowed and entirely supported by what is called Vakf, being funds from property left in trust devoted to charitable purposes. The hospital is in connection with the shrine of Imam Reza, a Persian prince, and is administered by the keeper of the shrine for the time being, called Muteveli Bashi. The institution has a medical staff and nurses of both sexes, and it possesses a pharmacy.

THE ROYAL HOSPITAL, TEHERAN.

This hospital is under Government direction, and is administered by the Minister of Sciences. It was founded by the present Shah, and is used as a general and military hospital. The military side has its own staff of surgeons and dispensers, special cases only being occasionally consigned to the general wards. It has a medical staff, three of whose members proceed from the Polytechnic of Teheran, where they have been trained by the European medical professors of the college. Some of the students have also studied in Europe. The nursing staff consists of male attendants, two women only being employed in the hospital for washing and sewing. The nurses are paid daily. The hospital is financed by the State and has a fixed income and expenditure.

THE HOSPITAL AT ISPAHAN.

This hospital was established by his Royal Highness Ziless-Sultán. The medical staff are trained at the Polytechnic of Teheran and we learn that it has a fixed income and expenditure, but no further particulars concerning this hospital are forthcoming.

THE AMERICAN HOSPITAL AT AROOMIAH.

The hospital is under the management of the American Missionary Society at Aroomiah and in America. There is a medical staff, and classes for clinical instruction are held by Dr. Cochrane of Aroomiah. The nurses are natives and of both sexes. Three of them are males, one acting as steward, and two are females, one of whom has other duties in the hospital.

The staff is increased in times of necessity, about one nurse to ten patients being provided. They receive all their training in the hospital. The cost per bed is calculated to be £5 10s. per annum. The income is derived from funds provided by one American gentleman and from the subscriptions of individuals and charitable societies.





CHAPTER XXXI.

UNITED STATES OF AMERICA.

ORGANISATION AND MANAGEMENT.



THE organisation and management of American hospitals present great varieties. The municipal hospitals, properly so called, that is to say, those constructed and supported by municipal authorities for the care of the sick poor, are usually managed by non-professional business men, who act under the direction of special committees, or of the commissioners who deal with the municipal charities.

The Boston City Hospital, however, has a superintendent who is a physician, and who devotes his entire time and attention to the business of the institution, having nothing to do with the treatment of the sick, unless, indeed, he may be called on for advice by the resident physicians in case of emergency.

The resident physicians are usually recent graduates from medical schools in the city, and are selected by competitive examination, the term of service varying from one to two years. The attending medical staff is composed of physicians and surgeons elected by the Commissioners of Charity, or in some instances appointed by the mayor. Their services are gratuitous so far as the municipality is concerned, but they are usually teachers in some medical school, which is benefited by their appointment. The teachers in several different medical schools may hold appointments on the staff of a single municipal hospital, as, for instance, at Bellevue,

in New York, or at the Philadelphia Hospital in Philadelphia, and in such cases they may either lecture exclusively to clinical students of their own school, or may give clinical lectures which all students who take out the hospital ticket may attend. In times past there have been numerous controversies between rival medical schools to secure the exclusive privilege of giving clinical attendance and instruction in these municipal hospitals ; and where the appointing power rests in the hands of a man or men who may be swayed by motives of a political nature and the desire for office for themselves and their friends, it is easy to see that the results of such a system may at times be detrimental to the interests of the hospital.

There are no State hospitals in America except those for the insane, although State grants of funds are made to a few local institutions which are, practically, municipal hospitals.

The large number of hospitals supported by different religious bodies are managed by representatives of those organisations. The Catholics have many such institutions, managed by Sisters of Charity ; there is a Hebrew hospital in each large city, and there are several Episcopal, Presbyterian, and Methodist hospitals, which are under the direction of these several organisations. The superintendent of the Episcopal Hospital in Philadelphia is a physician, but, as a rule, the superintendent of such institutions is a layman.

The superintendent of the Johns Hopkins Hospital is a physician who has control of all departments of the institution, and through whom all orders of the Board of Trustees are promulgated ; and the same is the case with the Massachusetts General Hospital and the Hospital of the University of Pennsylvania.

MARINE HOSPITAL SERVICE.

The Marine Hospital Service of the United States was established by Act of Congress passed July 16, 1798. Its remote origin is connected with the establishment of the Royal Hospital for Seamen at Greenwich, the seamen of the American colonies having been taxed to support this hospital by Act of Parliament passed in the second year of the reign of George III. The sum of sixpence per month was collected for this purpose from the salaries of seamen, English subjects, sailing in and out from American ports.

The same system was continued after the Declaration of Independence by the States of Virginia and North Carolina, and the

matter was finally taken under the direction of the United States, as above stated. This Act for the relief of, and protection of, American seamen was passed on the ground that "numbers of seamen, both foreigners and natives, arrived at the different ports of the United States in such a disabled situation that they either became a great burden to the public hospitals, where any such are established, or are left to perish for want of proper attention." The law provided for the collection of twenty cents per month from the wages of all seamen, to create a fund for the providing of hospital relief for sick seamen of the commercial marine, either by the erection of hospitals or by contract with existing hospitals.

Under the operation of this and succeeding laws a number of hospitals were erected both at the seaports and at several points on the Mississippi and Ohio rivers ; but it was not until 1870 that a systematic national service under the direction of medical officers was provided, and that it was required that the head of the bureau should be a physician instead of an ordinary clerk, as had before been the case.

At present the corps of the United States Marine Hospital Service consists of a supervising surgeon-general, of surgeons, passed assistant-surgeons, and assistant-surgeons, and of non-commissioned officers and employés. The medical officers are selected by examination before a special Board, and original appointments in the service are only made to the rank of assistant-surgeon.

The persons entitled to the benefits of this service are those employed on board in the care, preservation, or navigation of any vessel of the United States, or in the service, on board, of those engaged in such care, preservation, or navigation, except persons employed in, or connected with, the navigation, management, or use of canal boats engaged in the coasting trade. The relief given consists in part of dispensary or out-patient relief, and in part of hospital care.

During the fiscal year 1889 relief was furnished to 49,518 patients, of whom 13,729 were treated in hospital. At the majority of the ports hospital relief is furnished by private or municipal institutions on contracts made with the Department. The Department has hospitals of its own at Baltimore, Boston, Cairo, Chicago, Cincinnati, Detroit, Evansville, Key West, Louisville, Memphis, Mobile, New Orleans, Portland, Port Townsend, St. Louis, San Francisco, Vincyard Haven, and Wilmington.

Most of these are old buildings and present no features worthy

of special commendation. The most recently constructed, and one of the best in the service, is that in the city of Baltimore. This is a pavilion hospital, containing three one-story pavilion wards built of wood, with two-story executive building, dining-room, and surgeons' and assistant-surgeons' quarters built of brick, the whole being intended for the accommodation of sixty patients.

HOSPITAL ESTIMATES AND BUDGETS. FREE AND PAY BEDS.

In those hospitals in which the receipts from pay patients form an important part of the income, which is the case with some of the smaller American hospitals, it may become desirable, or even necessary, from time to time to adjust the number of beds for free patients to those occupied by pay patients, in order to keep the expenditure within the limits of the income available to meet it.

It is often the case that a hospital whose annual expenditure must be largely met by voluntary contributions will have bed accommodation for more patients than it has the means to provide with proper food and attendance, and therefore can only take in a limited number of free patients, while it can accommodate a number of patients who will pay at least sufficient to meet the expense which they cause to the institution. For example, in the hospital of the University of Pennsylvania the Board of Governors, from time to time, usually about twice a year, after reviewing the financial situation, issue an order fixing the maximum number of free beds, which may be filled by the superintendent, subject, however, to the condition that cases of accidents requiring immediate hospital care are to be received even if the prescribed number of free beds are full. When, however, by reason of the admission of such special accident cases the number of free patients has been made to exceed the limit fixed by the Board of Governors, no more free patients can be admitted until, by discharge or death, the number has been reduced below this limit. The beds in excess of this limit then become available for pay patients at rates just equivalent to the additional expense which they cause.

The result of this system is that some persons manage to pay this rate when they find that it is impossible to gain admission otherwise, and also that the attention of the friends of the institution and of the public is thus called to its need for funds to do the work which it has been organised and planned to do. In a community of busi-

ness men, the fact that the managers of a hospital refuse to undertake more than the income justifies, and decline to incur indebtedness which there is no definite prospect of meeting, tends to create confidence and a willingness to give substantial aid when the need for such aid is demonstrated.

PAY PATIENTS.

American municipal hospitals as a rule have no rooms for pay patients, being destined solely for charity. The majority of other hospitals, including those under the direction of churches and medical schools, or of private corporations, provide accommodation for paying patients. The Johns Hopkins Hospital has two buildings devoted exclusively to this purpose, one for males and the other for females, in which each person has a well-furnished single room and all the accommodation of a good hotel. Paying patients are also often taken into the common wards at low rates. In most of the large cities there are hospitals devoted exclusively to the reception of pay patients of special classes, such as those suffering from nervous diseases or from diseases of women. These hospitals are private institutions, often owned by physicians, and but few of them have been specially constructed for the purpose for which they are now used.

OUT-PATIENTS.

Almost all American hospitals have an out-patients' department, or dispensary as it is commonly called, and for some institutions connected with medical schools the dispensary is very large in proportion to the number of beds contained in the hospital itself. In all the larger cities the free dispensary business is quite as much overdone as it is in England, and perhaps even more so, and is liable to the same abuses. The desire of the younger physicians for clinical material, whether it be for the sake of studying a particular class of cases, or to be used for teaching purposes, leads to the establishment of numerous special dispensaries for diseases of the eye, skin, throat, &c., or for diseases of women, diseases of children, &c., in addition to the arrangements for out-patients connected with hospitals and medical schools; and the pecuniary circumstances of those applying for relief are, as a rule, not carefully scrutinised. In the out-patients' departments of the two

largest Boston hospitals, however, this abuse of public charities is guarded against to some extent, by making special inquiries as to the circumstances and home surroundings of those applying for relief, by sending an officer of the institution to investigate all cases of new applicants. This, of course, is not a complete preventive, since a false address is sometimes given, but it does have a decided effect in checking the abuse of the charity by those who are well able to pay for the counsel and medicine which they obtain from it.

The arrangements for out-patients in some of the newest hospitals are elaborate and costly, separate buildings having been constructed for this especial purpose; the best examples being the dispensary buildings of the Presbyterian and the Roosevelt hospitals in New York, of the Johns Hopkins Hospital, and the Vanderbilt Clinic connected with the college of physicians and surgeons of New York.

In some of the large hospitals the out-patients' department is placed in the basement of one or more of the ward pavilions, in order to economise space. Good examples of this arrangement may be found in the hospital of the University of Pennsylvania, and the Episcopal Hospital in Philadelphia, and in the Children's Hospital in Washington. It is not a desirable plan, and where there is sufficient space, it is better to provide a separate building for this purpose, so arranged, that the entrance and exit of out-patients is distinct from that to the other buildings of the hospital.

TRAINING SCHOOLS FOR NURSES.

Training schools for female nurses are now established in connection with most of the large hospitals in the northern United States, as a regular part of the organisation. This change from the old system has occurred within the last twenty years, the movement having been inaugurated by the organisation of a training school in connection with the Bellevue Hospital, New York, but under entirely distinct management. Previous to this time the only organised bodies of trained nurses were those of religious sisterhoods, chiefly Catholics, and the so-called training in these did not at all correspond to what is now understood by that word.

During the war, 1861-65, large numbers of female nurses were employed in the military reserve hospitals, but these were scattered at the close of the conflict, and it was not until a number of ladies in New York City organised the Bellevue Hospital Training School,

and obtained a trained nurse from England to act as superintendent and teacher, that the modern nursing system began to be established in the United States. At present there are several training schools for nurses in America, the largest and most important being those of the Philadelphia Hospital, the Bellevue Hospital, the Boston City Hospital, and the Massachusetts General Hospital, the Wards Island Hospital in New York, and the Illinois Training School at Chicago. The training school for nurses at the Johns Hopkins Hospital is not large in numbers as yet, but bids fair to be an important factor in this field of work.

The great majority of these training schools have been organised by, and are directly under the control of, the authorities of the hospitals to which they belong. The pupils are usually between twenty-five and thirty years of age on entrance, receive about ten dollars a month for the first year of their pupilage, and fifteen dollars a month for the second. It is not yet common in America as it is in England for educated women to take a year's training in a nursing school, paying for the privilege, but a commencement has been made in this direction. The only training school for male nurses in America is one connected with the Bellevue Hospital, New York.

AMBULANCE SYSTEMS.

The ambulance arrangements of the large hospitals in Boston, New York, and Philadelphia are well organised, and cases of accident are brought by the ambulances to the hospital with the least possible loss of time. In three minutes after a telephone message has been received that some one has been hurt or poisoned, the ambulance will be on its way to the spot at full speed, carrying with it one of the resident physicians, and the means for giving first help to the patient. Almost every hospital in an American city is connected with the general telephone system—which also reaches all police stations and most of the hotels—so that there is little difficulty in sending a call for the ambulance to any hospital.

LAUNDRIES.

The larger American hospitals have excellent laundries, provided with the latest forms of labour-saving machinery for washing, wringing, and ironing the clothes. The clothing of the patients is washed in these, and the machinery for effecting this is distinct from

DAILY COST PER PATIENT.

The following table shows the Daily Expenditure per patient as shown by published reports of certain American hospitals for the years 1887, 1888, 1889, and 1890. (Interest on Loans and Expenses in Permanent Building not included.)

Name of Hospital.	Average number of Patients during the four years.	1887.	1888.	1889.	1890.
Association Hospital, Concord, N.H.	12	\$...	\$...	\$ 1.71	\$...
Cambridge Hospital, Cambridge, Mass.	16	...	1.88	1.87	1.84
Garfield Memorial Hospital, Washington, D.C.	26	1.53	1.75	1.63	1.69
Newport Hospital, Newport, R.I. ...	30	...	...	1.39	1.39
City Hospital, Worcester, Mass. ...	49	1.29	1.58	1.55	1.56
Maine General Hospital, Portland, Maine... ..	57	1.39	1.50	1.60	1.53
Methodist Episcopal Hospital, Brooklyn, N.Y.	58	...	...	1.86	1.78
Presbyterian Hospital, Philadelphia, Pa.	65	...	1.68	1.66	2.32
Rhode Island Hospital, Providence, R.I.	80	...	1.63	1.69	...
Harper Hospital, Detroit, Mich. ...	94	...	0.99	1.11	...
University of Pennsylvania Hospital, Philadelphia, Pa.	100	1.67	1.33	1.41	1.74
Hartford Hospital, Hartford, Conn. ...	113	0.91	1.00	1.08	0.89
Presbyterian Hospital, New York ...	128	...	...	1.29	1.40
Massachusetts General Hospital, Boston, Mass.	146	1.60	1.74	1.75	1.57
Roosevelt Hospital, New York ...	154	1.32	1.39	1.39	1.62
New York Hospital	160	1.61	1.64	...	...
Pennsylvania Hospital, Philadelphia, Pa.	168	...	1.09	1.10	...
Episcopal Hospital, Philadelphia, Pa.	172	0.97	1.00	1.00	1.03
St. Luke's Hospital, New York ...	175	...	...	...	1.40
Cincinnati Hospital, Cincinnati, Ohio	300	0.82	0.80	0.88	0.83
City Hospital, San Francisco, Cal. ...	309	0.63	...	...	...
Boston City Hospital, Boston, Mass....	371	1.06	1.13	1.13	1.55
Charity Hospital, New Orleans, La.	638	0.89	...	...	...

PERCENTAGE OF COST OF VARIOUS ITEMS.

Table showing for different Hospitals the Percentage of Total Annual Cost of Maintenance (excluding Interest on Loans and Expenses in Permanent Building, and Extraordinary Expenses), due to certain Classes of Expenditure.

	Year.	Pro-visions.	Salaries and Wages.	Alcohol and Liquors.	Fuel.	Drugs.	Surgical Instruments and apparatus, dressings, etc.
		§	§	§	§	§	§
Garfield Memorial Hospital, Washington, D.C.	1887	34.52	32.19	1.77	6.30	3.82	1.99
	1888	37.43	31.24	1.05	5.45	3.73	1.79
	1889	34.97	36.64	1.37	5.84	3.00	1.34
	1890	32.74	36.12	0.73	5.12	3.96	2.76
Cambridge Hospital, Cambridge, Mass.	1887-8	31.88	43.72	..	6.96	4.86	1.08
	1888-9	28.42	47.76	..	7.36	3.07	0.99
City Hospital, Worcester, Mass. . .	1889	27.30	32.17	..	10.90	3.42	0.65
	1890	26.50	30.37	..	7.53	4.11	1.37
Maine General Hospital, Portland, Maine	1889	37.77	26.94	..	10.82	..	..
	1890	39.29	29.65	..	1.95	..	..
Rhode Island Hospital, Providence, R.I.	1888	37.19	37.49	2.96	0.31	6.66	0.31
	1889	38.00	35.29	3.60	0.44	7.73	0.75
University of Pennsylvania Hospital, Philadelphia, Pa. . .	1889	40.22	23.23	2.33	6.74	6.21	2.92
	1890	43.02	23.77	1.60	7.58	4.58	1.32
Hartford Hospital, Hartford, Conn.	1886-90	35.53	32.77	1.56	7.46	2.53	1.42
Massachusetts General Hospital, Boston, Mass.	1887	33.86	29.02	2.40	5.14	2.38	2.80
	1888	32.50	27.75	2.23	7.46	2.13	2.36
	1889	31.75	27.33	2.61	8.50	3.11	2.89
	1890	34.78	31.53	2.02	8.95	3.56	2.99
Roosevelt Hospital, New York . .	1887	28.89	28.39	0.95	7.01	8.32	8.23
	1888	28.54	27.70	0.69	8.33	6.75	7.19
	1889	27.61	28.46	0.89	7.20	6.87	8.74
Pennsylvania Hospital, Philadelphia, Pa.	1887	36.45	25.99	2.82	5.44	3.32	3.94
	1888	37.83	24.89	2.43	7.12	3.29	4.69
	1889	37.69	25.41	3.38	8.25	2.91	4.81
Cincinnati Hospital, Cincinnati, Ohio	1889	34.82	30.12	1.46	8.58	2.80	1.29
	1890	34.21	31.33	..	8.98	..	0.81
City Hospital, San Francisco, Cal.	1889	36.82	40.06	2.54	7.53	5.62	0.78
Eleven London Hospitals	1890	25.15	28.58	2.42	..	13.94	
Nine English Provincial Hospitals	1890	32.69	25.37	2.24	..	14.80	

SOURCES OF HOSPITAL INCOME

Hospital.	Dividends and Invested Property.		Donations and Subscriptions.		Legacies.		Hospital Saturday and Sunday.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
	\$	\$	\$	\$	\$	\$	\$	\$
Massachusetts General Hospital, Boston, Mass.	110,135.14	34,793.40	11,550.00	13,496.00	..	..	..	..
St. Luke's Hospital, New York	31,827.62	34,795.02	12,410.30	100,276.02	4,225.71	136,580.69	7,789.70	8,671.82
Presbyterian Hospital, New York.	44,996.91	34,722.29	73,404.93	125,034.72	2,500.00	235.91	..	..
Pennsylvania Hospital, Philadelphia, Pa.	48,380.70	45,558.40	62,134.83	66,770.47	..	..	..	..
Hospital of Protestant Episcopal Church, Philadelphia, Pa.	36,759.80	44,672.21	260,425.80	30,035.58	60,977.27	171,286.25	..	..
Presbyterian Hospital, Philadelphia, Pa.	25,701.65	27,211.34	11,826.44	10,575.06	104,695.00	93,591.00	..	..
Hospital of University of Pennsylvania, Philadelphia, Pa.	28,320.39	27,843.25	2,225.00	29,748.49	..	5,000.00	..	..
Rhode Island Hospital, Providence, R.I.	26,512.34	27,455.31	3,143.93	5,993.80	2,000.00	250.00	1,306.68	1,408.05
Harper Hospital, Detroit, Mich.	3,099.75	7,951.73	1,676.30	859.29	..	..	..	..
Maine General Hospital, Portland, Maine.	8,491.91	8,379.19	5,948.00	3,782.00	1,250.00	4,600.00	783.65	983.20
City Hospital, Worcester, Mass.	9,464.79	10,420.34	..	..	..	..	..	..
Cambridge Hospital, Cambridge, Mass.	2,860.55	4,129.42	17,059.20	14,953.03	20,000.00	..	..	..
Newport Hospital, Newport, R.I.	10,717.18	9,649.35	131.64	4,246.00	3,609.93	..	..	..
Association Hospital, Concord, N.H.	278.13	619.28	2,187.71	1,485.74	..	..	..	..
Methodist Episcopal Hospital, Brooklyn, N.Y.	3,074.41	4,357.04	35,744.19	22,404.06	..	..	..	..
Garfield Memorial Hospital, Washington, D.C.	..	..	9,721.25	14,444.70	..	..	..	..
Hartford Hospital, Hartford, Conn.	..	..	..	10,000.00	1,000.00	2,000.00	..	..
Totals	390,912.75	372,652.63	309,898.82	524,579.96	200,317.91	413,543.35	9,880.03	11,063.07
Percentages	26.78	19.86	21.24	27.96	13.73	22.04	.68	.59

^a Includes \$34,500 to pay loan, \$49,000 for endowed beds.
^b Includes \$25,137.50 contribution to "Special Building Fund."
^c Includes \$58,129.53 contributed for "Permanent Fund."
^d Includes \$12,700.13 contributed for "Permanent Fund."
^e Includes \$27,522.47 for "Endowment Fund."
^f Includes \$12,425.00 for "Endowment Fund."
^h Added to Endowment Fund.
ⁱ Includes \$225,573.10 contribution to "Special Building Fund."

IN THE UNITED STATES.

Patients' Payments.		Miscellaneous Receipts.		Totals.		Endowments and Invested Property.		Remarks.
1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	
\$	\$	\$	\$	\$	\$	\$	\$	
24,824.13	29,437.99	..	..	146,829.27	127,727.39	1,874,891.49	1,937,502.24	° This is the invested capital of the Corporation, producing income for support of Hospital and McLean Asylum; any deficit in the income of special funds is met by the general fund.
19,657.17	25,264.04	14,788.24	380.52	110,839.80	306,577.22	659,089.72	835,670.41	
8,192.68	6,458.40	..	4,676.46	129,094.54	281,027.78	..	..
239,364.24	229,014.59	35,352.49	25,557.15	385,232.26	326,840.61	..	..	There amounts include the income of the Hospital for the Insane.
1,501.14	1,330.16	4,478.15	7,210.73	164,142.16	254,554.93	186,000.00	273,783.44	
2,301.38	2,346.20	5,102.25	36,892.45	149,626.12	170,696.25	..	..
21,336.30	21,006.83	15,937.07	918.76	57,818.76	84,517.33	..	..
8,674.63	8,383.33	550.02	466.15	42,187.60	43,867.24	451,245.37	452,845.09	
21,625.49	27,674.25	1,044.24	778.70	27,445.78	37,263.97	50,000.00	133,500.00	
17,703.66	15,410.63	5,240.62	5,293.67	39,417.84	38,448.60	..	..	State appropriation \$5,000.
4,001.69	4,775.01	17,805.13	17,754.96	31,271.61	33,011.13	226,832.73	227,962.54	Appropriations made by City Council to meet balances required in addition to income from funds, pay patients, &c.
3,204.56	3,266.14	632.01	4,764.28	43,756.32	27,177.87	95,232.74	104,622.99	
3,642.16	5,176.54	29.27	12.32	18,130.48	19,090.41	61,400.00	53,500.00	
4,147.30	4,094.14	1,832.62	1,511.06	8,445.76	7,710.22	9,481.67	9,893.98	° \$1,200 of this sum appropriated yearly by the City of Concord.
1..	5,711.43	15,478.73	11,712.30	54,497.33	44,194.83	100,000.00	113,723.00	Receives assistance from City and State.
1..	1..	12,434.92	17,546.62	22,156.17	31,991.32	..	..	† 1889, Congressional appropriation \$11,250.00; 1890, Congressional appropriation \$17,500.00. Also receives substantial aid from "Ladies' Aid Association."
7,489.88	7,851.11	19,850.30	21,711.80	28,340.27	41,565.93	..	..	‡ In addition to an appropriation of \$5,000 the State pays a certain amount for the care of soldiers and the various towns in the State contribute for the treatment of residents.
387,666.41	397,214.66	160,556.15	157,202.95	1,456,232.07	1,876,263.12	3,714,173.72	4,143,003.69	
26.56	21.17	11.01	8.38	100.0	100.0			

* Includes a loan of \$5,000.

† Included in "Donations and Subscriptions."

that used for the clothing of the officers, nurses, and attendants. Disinfecting appliances are connected with the laundry in some hospitals, the best example being that of the Johns Hopkins, where the disinfection is effected in a double iron cylinder heated by steam admitted to the jacket and also to the interior of the chamber. A wooden frame for carrying the mattresses, clothing, &c., to be treated, slides into the iron chamber, and the opposite doors of this chamber open into different rooms, so that the disinfected articles do not pass into a place where infected clothing has recently been. In addition to the usual sliding frames for drying the wet clothing by steam heat, this laundry has the roof fitted up with lines for exposing all the linen to fresh air and sunshine when the weather permits.

INCOME AND EXPENDITURE.

No uniform system of reports of income and expenditure has yet been established for American hospitals. Many of the hospitals publish no reports of any kind, and as regards those that do publish reports it is often very difficult to make out from the data furnished even the average daily cost per patient.

In general it may be said that the average expenditure per day's treatment furnished is at least twenty per cent. higher in American than it is in English and Scotch hospitals. This appears to be due to the fact that American hospitals furnish everything required by the patient, including articles of extra diet and washing, which is not the case in many English hospitals. The scale of salaries and wages is somewhat higher in American than in English hospitals.

The cost in municipal hospitals is, as a rule, less by fifty per cent. than it is in those maintained by endowment or voluntary aid. In the latter class of hospitals the variations in cost depend chiefly on the size of the hospital, the proportion of patients treated in private rooms, the amount of donations of articles of food and furniture, and the presence of a training school for nurses. The average cost per day's treatment has been increasing of late years, as it has done in England.



CHAPTER XXXII.

MILITARY AND NAVAL HOSPITALS.*

MILITARY HOSPITALS.

ALTHOUGH we have undoubted evidence from history and antiquities that the Romans had some sort of a medical staff attached to their armies, we have no record of anything in the shape of a regular hospital, either in camp or quarters. Even field hospitals appear to have had no regular existence down to a late period, although traces of them are to be found in the histories of the wars of the sixteenth and seventeenth centuries. It was apparently in the eighteenth century, which saw so remarkable a movement in the establishment of civil hospitals, that the special naval and military hospitals began to be built; that is, buildings for the treatment of sick and wounded sailors and soldiers—for we do not reckon under this head those which, like the “Invalides” in Paris, or Greenwich Hospital in England, were established for the reception of disabled or veteran soldiers or sailors, whose time of service was at an end. The original plan of hospital arrangement for our army was on the regimental system, each battalion having its own hospital, medicine chest, etc. This system continued through the wars of the last century, but towards its close a change was made by the creation of the Army Medical Board in 1793. This Board consisted of men whose ideas and experience were limited to London practice, and whose sole idea of a hospital was

* *Special Note.*—It has been found more convenient to give a description of representative Military and Naval Hospitals in each country in the course of this chapter, instead of in Volume IV. The plans given will be found in the portfolio.

such as they had been accustomed to in St. Bartholomew's and St. Thomas's.

The regimental system was subordinated to a new system, under which the practice of the healing art was divided into surgical and medical, and new officers with the titles of physician to the forces, surgeon to the forces, etc. were commissioned, to which positions the regimental officers were not allowed to aspire.

Following the example of civil life, large general hospitals were established in England, of which the chief were : the York Hospital at Chelsea, Deal Hospital, Plymouth Hospital, Gosport Hospital, and Chatham Hospital. The last of these was intended to be the *Dépôt* General Hospital of the army, but just before it was finished in 1801 the *dépôt* establishment was removed to the Isle of Wight, so that it was not at first used for the purpose intended. It is curious, however, that of all those above mentioned, Chatham Hospital was the only one that was ultimately permanently employed for the purpose and that is still in use, the other four having been long ago adapted for other purposes.

The Army Medical Board, which was appointed in 1793, and consisted of a physician-general, a surgeon-general, and an inspector-general of hospitals, lasted for twenty years, when it happily came to an end, as it was a body wanting in unity, the members being independent of each other and sometimes antagonistic, and their selection having been generally made with but little reference to their suitability for the duties assigned.

In 1814 the management of the medical department was vested in a single head under the title of Director-General,* the post being given to the late Sir James McGrigor, the distinguished principal medical officer of the Duke of Wellington's army in the Peninsula.

The office of physician to the forces lingered on till 1830, when it was replaced by that of assistant inspector, and it was finally abolished in 1840 by the Royal Warrant which appeared in that year.

During the long administration of Sir James McGrigor (1814-1852) the regimental hospital system was restored, the only general hospital in Great Britain being that of Fort Pitt, Chatham, which was the *dépôt* hospital for the army, and also the place of rendezvous and probation for the medical candidates about to be commissioned as assistant surgeons.

* There was still for many years a separate Director-General for the Ordnance Medical Department ; and there was also a separate Director-General for Ireland, but on the retirement of the last incumbents of those posts, the administration was transferred to the Director-General of the Army Medical Department.

The length of time passed by these gentlemen at Fort Pitt was governed by the occurrence of vacancies to which they might succeed and by the urgency or otherwise of the requirements for their services. In time of war the probation might be merely nominal or even *nil*, for the candidates might be drafted off at once for active service; whilst in time of peace the probation might last for an indefinite time, seldom less than three or four months but sometimes extending to a year or more. As the candidate received no pay and only sometimes quarters, this probationary period meant often a drain on his private resources, particularly as he had to live at mess and bear the same expenses as a fully commissioned officer.

Up to the time of the Crimean War, the medical arrangements of the Army stood as follows :—

1. There was but one general hospital, viz. Fort Pitt, Chatham, which was practically the headquarters of the hospital staff (as the medical staff was then called) and the invaliding hospital of the army.

2. In some large garrisons, as in Dublin and Chatham, there was a garrison hospital, in which the patients of the different corps of the garrison were treated by their own medical officers. This was also carried out at Aldershot, Portsmouth, etc. until the changes made by the Royal Warrant of 1873, which practically abolished the regimental system.

3. In smaller garrisons there were regimental hospitals, and where detachments were not too small or at any great distances from headquarters, there was a detachment hospital. Small detachments within a certain distance were provided for in the regimental hospital, or were attended by civil practitioners on the spot.

The amount of hospital accommodation was calculated at 5 per cent. of the strength in ordinary times—an allowance at the time by no means too liberal.

The medical staff for each regiment (of 1,044 of all ranks when complete, not including women and children) was formerly one surgeon and two assistants, increased to three when the regiment went abroad, the senior assistant being generally left at home with the four-company *depôt*.

From the time of the Crimean War, and, indeed, before it as regards troops on Indian service, *depôt* battalions were formed, in which the *depôts* of corps (generally two companies each) were massed together and the sick attended to by the medical staff of the *depôt* battalion.

The provisioning of the sick was carried out by the purveyors'

department, practically the commissariat of the hospital. Originally this department was small in number, formed an integral part of the medical staff, and was directly under the senior officer of that corps. After the close of the Crimean War the department was reorganised by Royal Warrant and given a more important position, practically independent of the medical officers. This change led to a good deal of friction, and impaired the smooth working of the hospitals. After some years the purveyors' department was absorbed into the Control Department, a department formed on the model of the French Intendance. A few years showed the impracticability of the change, and the commissariat branch was restored under the title of the Commissariat and Transport Staff. This has recently been further amalgamated into the Army Service Corps. The purveyors' branch was not reconstituted, and the purveying duties in hospitals are now carried out by the Army Service Corps.

The attendance of the sick and the cooking were carried on by men taken from the ranks for duty as hospital orderlies and cooks. Each regimental hospital had its hospital sergeant, who was responsible for the management and discipline of the hospital, under the direction of the surgeon.

The orderlies received no special training except what they got in the hospital itself. In special cases extra men were temporarily employed to sit up with serious cases, or in case of an unusually large number of patients.

The dispensary arrangements were as follows :—

A certain equipment of medicines and appliances was allowed, and half-yearly requisitions were sent in by the surgeons for the amounts required ; and these, on being approved by the principal medical officer and Director-General, were complied with by the apothecaries' department. This department was, properly speaking, only a storekeeping department, everything being supplied by civilian houses. It was originally the duty of the assistant-surgeon (as laid down in the regulations) to dispense all medicines and see them administered to the patients. This irksome duty was much resented, and the work was often delegated to the hospital sergeant or surgery man, as the case might be. Shortly after the Crimean War dispensers, that is, soldiers who had undergone instruction in dispensing, were officially sanctioned, and the assistant-surgeon was relieved of this duty.

It is hardly possible to give any typical example of regimental hospitals before the changes that took place a quarter of a century

ago, as the forms of them were so various not to say heterogeneous. In many cases, if not in most, the building, or part of a building, employed was not originally constructed for hospital purposes, and the consequence was that rooms ill adapted for the treatment of the sick had to be utilised as could best be done. The wards were sometimes irregular, sometimes of disproportionate breadth and length; the windows were either all on one side, or at the two ends, and the arrangements for ventilation were very imperfect. There was no fixed amount of cubic space or floor space, either in barracks or hospitals, and the result was at least occasional crowding, to the detriment of the sick and the discouragement of the medical officers.

The Royal Commission of 1857 inquired very carefully into the sanitary condition of the Army and the state of its hospitals. (See p. xxxvii of Report, and Evidence.) In the following year, 1858, a Barracks and Hospitals Commission was appointed—the active members of which were Captain (now Sir Douglas) Galton and the late Dr. Sutherland—who drew up the rules of construction which are now generally followed and are familiar to all under the name of the ‘Pavilion plan.’ This plan, the principles of which are described elsewhere in this work, had been already applied in civil hospitals, in France in the Lariboisière Hospital, and in this country in the Blackburn Infirmary. It was first applied in the Army in the construction of the Herbert Hospital at Woolwich, which was built under the direction of Sir Douglas Galton, and still remains one of the best examples of a pavilion hospital in this country. Various smaller hospitals were also constructed on the same plan, such as those at Hilsea, near Portsmouth, at Hounslow, York, and elsewhere. In 1878 the Cambridge Hospital at Aldershot was built, and numerous station hospitals have been erected in different parts of the kingdom.

The principle was also directed to be extended to foreign stations, and the committee which visited and reported upon the Mediterranean stations in 1862 proposed an excellent plan for a pavilion hospital at Valetta (Malta) which has, however, never been carried out, although it has appeared again and again in books in all languages as the plan of the military hospital in Malta.

Within the last few years the system of circular wards has been brought prominently forward by General Sir A. Clarke. A few small military hospitals have been built on this plan, such as that at Fleetwood and the Milton Hospital at Gravesend. A similar plan for a garrison hospital at Valetta has been drawn up, and was

exhibited at the Royal Academy, but it has not yet been brought to a more successful issue than its predecessors.

CONSTITUTION OF THE MEDICAL STAFF.

The medical staff is under a Director-General of the Army Medical Department (surgeon-major-general), who is directly responsible to the Secretary of State for War as regards his administration, and to the Commander-in-Chief of the Forces as regards the personal movements of his officers. He commands the Medical Staff Corps, having an officer of the medical staff as staff officer at headquarters. He is assisted by a surgeon-major-general, the head of the medical branch, and by a brigade-surgeon-lieutenant-colonel, the head of the sanitary and statistical branch.

The administrative ranks are surgeon-major-general and surgeon-colonel. A surgeon-major-general is appointed to all commands under a general or lieutenant-general. Thus at home there is a surgeon-major-general at Aldershot, at Portsmouth, at Netley (in the Portsmouth command), and at Dublin; abroad, at Gibraltar, at Malta, and in each of the Presidencies of India. A surgeon-colonel is principal medical officer of a divisional command under a major-general or brigadier-general. One is appointed to each of these districts at home, and to each of those abroad, including India.

The executive ranks are brigade-surgeon lieutenant-colonel, surgeon-lieutenant-colonel, surgeon-major, surgeon-captain, and surgeon-lieutenant. The entrance into the service is by open competition for all qualified subjects of her Majesty of unmixed European blood. The candidate who is successful at the competitive examination goes through a course of four months' special training at the Army Medical School at Netley, during which time he is styled "surgeon-on-probation." At the close of the course he has to pass a further examination, and if successful is then commissioned. He then proceeds to Aldershot for special instruction in bearer-company drill and military law before he is appointed to regular duty.

THE MEDICAL STAFF CORPS.

This is the corps that supplies the wardmasters, orderlies, cooks, dispensers &c. required for the proper working of hospitals. The

grades are those of sergeant-major (warrant officer), staff-sergeant, sergeant, corporal, and private. All are specially selected and specially trained for the work they have to do.

They are under the command of the officers of the Medical Staff, but the details of their routine work in the corps are carried on by quartermasters with the honorary rank of captain and lieutenant, acting under the medical officers. In addition to the pay of infantry of the line they have free rations and extra pay under certain circumstances.

CLASSIFICATION OF HOSPITALS.

Military hospitals are classified as follows :—

1. *General Hospitals*, which are organised under a principal medical officer, a sanitary officer, and a registrar or secretary. There is also a staff of medical officers, with the necessary number of warrant and non-commissioned officers, and rank and file of the Medical Staff Corps. There is also usually a lady superintendent and complement of nursing sisters.

General hospitals are for all classes of the naval and military forces when occasion arises, including :—

(a) The local sick of the regular forces.

(b) Foreign invalids (that is, troops invalidated from foreign stations).

(c) Seamen and marines of the Royal Navy, foreign sailors, and others admitted under special sanction.

(d) Sick of auxiliary forces.

(e) Sick officers.

(f) Sick women and children.

The Royal Victoria Hospital at Netley is an example of a general hospital.

2. *Lunatic Hospitals*.—The chief of these is that connected with the Royal Victoria Hospital. They are merely hospitals of observation and not permanent asylums.

3. *Station Hospitals*.—These are for the reception of the sick from all corps in garrison in the command, including those of the auxiliary forces when embodied, also such soldiers, seamen of the Royal Navy, Royal Marines, and other persons as may be admitted under special sanction. They are under the command of a brigade-surgeon-lieutenant-colonel or surgeon-lieutenant-colonel, with an adequate staff under him.

The above three classes of hospitals are *dicted*, that is, the

patients receive hospital diets according to the scale laid down in the *Regulations for the Medical Services*.

4. When there is a detachment of less than one hundred men, a *non-dieted* station hospital is opened, and placed, as a rule, under a civilian medical practitioner. The scale of equipment is—for a strength of forty men, two beds; for seventy men, three beds; for ninety men, four beds. The patients receive barrack rations, with such extras as the medical officer in charge may order. For detachments of only forty men, barrack equipment only is provided.

5. At certain stations, hospitals are provided for women and children. These are of two kinds:—

(a) Hospitals for general diseases and for cases of parturition.

(b) Hospitals for infectious diseases.

They are equipped and dieted like other military hospitals. Boys over ten years of age are not treated in such hospitals, except under very special circumstances.

In such hospitals a matron, duly certificated as a midwife, is appointed under the medical officer in charge, assisted by a competent staff of nurses and servants.

Hut Hospitals.—These consist of wooden huts, with or without verandahs, according to climate. The cubic space is laid down at a minimum of 600 cubic feet per head in temperate climates, or one-half of what is given in permanent buildings. Each ward is a separate hut, the kitchens, offices, etc., being also detached huts. Such hospitals have been in use for many years at Aldershot, the Curragh, and other camps and stations. Hut hospitals are found to be very satisfactory for the treatment of the sick, if proper precautions be taken for warming in winter and keeping cool in summer. The warming is generally done by stoves, round which fresh air may be introduced under the floor. Whitewashing the roof and walls modifies the sun's rays, which can also be kept off the walls by verandahs.

Dieting of Military Hospitals.—At home, and in time of peace, all hospitals are dieted according to the scale laid down in the *Regulations for the Medical Services*, except detachment hospitals, when the total effective strength is under 100 men, which are furnished with barrack rations and extras. In the field, the field hospitals are not dieted, but use field rations, whereas the hospitals on the lines of communication and at the base are dieted on the hospital scale.

There are seven standard diets, viz. tea, milk, beef-tea, chicken, convalescent, roast, and varied. The details of their composition are given in the regulations *loc. cit.*, and their nutritive values, together with special instructions.

Certain extras are authorised when ordered by the medical officer, viz. with all diets except "varied," eggs, milk, tea, beef-tea, arrowroot, sago, oatmeal, rice pudding, sago pudding, and the customary fruits in season.

With all diets, when considered requisite: wines (sherry, port, and claret), malt liquor (porter and ale), spirits (brandy, whisky, and gin); diet drinks, viz. barley-water, rice-water, gruel, and lemonade.

Under special circumstances, soda water, bottled lemonade, and calf's-feet jelly may be given.

Eight ounces of white fish with two ounces of butter may be ordered on milk, beef-tea, and convalescent diets.

Eight ounces of potatoes or four ounces of vegetables are admissible as an extra on beef-tea diet when found necessary.

The details of the several hospital diets and the form of diet sheet are given in the tables on pages 730 and 731.

Hospitals in the Field.—In the field a medical officer is attached to each battalion of infantry and regiment of cavalry, as well as to each field and horse division of artillery and field company of Royal Engineers. These officers render assistance on the field of battle itself.

Next in order come the bearer companies of the Medical Staff Corps, for carrying the wounded to the field hospitals.

There are two companies for each infantry division and six for an army corps, and to each company there are three medical officers, and one warrant officer, and sixty non-commissioned officers and men of the Medical Staff Corps. Each division has three field hospitals, forming the *second* line of assistance. Each field hospital is equipped for 100 patients, but is capable of being divided into two sections for fifty each. For each unit of 100 beds there are four medical officers, one quartermaster, one warrant officer, and thirty-nine non-commissioned officers and men. When divided, the sergeant-major acts as quartermaster.

The *third* line of assistance is formed by the hospitals on the lines of communication, which are called "stationary hospitals," although they are intended for movement if required. Each of them has a staff of nine medical officers, one quartermaster, and one

DIET TABLE.
MILITARY HOSPITALS.—Articles composing the different Diets for a Day.—*Acquired Diets* Weight.

Tea.	Milk.	Beef-tea.	Chicken.	Convalescent.	Roast.	Varied.
Bread 12 oz. Tea 2 " Sugar 3 pints Milk 1 oz.	Bread 12 oz. Rice 2 " Milk 3 pints Sugar 1 oz.	Beef 8 oz. Bread 14 " Tea 1 " Salt 1 " Sugar 12 " Milk 6 " Butter 1 "	Fowl 8 oz. Bread 16 " Potatoes 16 " Salt 1 " Tea 1 " Sugar 12 " Milk 6 " Butter 1 "	Meat { Beef or Mutton } 8 oz. Bread 16 " Potatoes 16 " Barley 14 " Salt 1 " Tea 1 " Sugar 12 " Milk 6 " Butter 1 "	Roast Joint, Chop, or Steak. Joint { Beef or Mutton } 10 oz. Chop 8 " Steak 8 " Potatoes 8 " Salt 1 " Tea 1 " Sugar 12 " Milk 6 " Butter 1 "	Meat { Beef or Mutton } 12 oz. Bread 18 " Potatoes 16 " Salt 1 " Tea 1 " Sugar 12 " Milk 6 " Butter 1 " Meat—roasted, baked, or stewed.

* Without bone.

* 10 oz. if with bone.

* 15 oz. if with bone.

Breakfast.

Tea .. 1 pint Bread .. 4 oz.	Milk .. 1 pint Bread .. 4 oz. Sugar .. 1 "	Tea .. 1 pint Bread .. 5 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "
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Dinner.

Tea .. 1 pint Bread .. 4 oz.	Rice milk 1 pint Bread .. 4 oz. Sugar .. 1 "	Beef-tea 15 oz. Bread 4 "	Fowl .. 8 oz. Roasted, boiled, or made into chicken tea 12 oz. Bread .. 4 " Potatoes 8 "	Soup .. 15 oz. Meat .. 8 " Bread .. 8 " Potatoes 8 " Meat .. 8 oz. Bread .. 6 oz. Potatoes 8 " Vegetables .. 4 "	Roast Joint, Chop, or Steak, roasted or stewed Meat .. 8 oz. Bread .. 6 oz. Potatoes 8 " Vegetables .. 4 "	Meat .. 12 oz. Bread .. 6 " Potatoes 16 " Vegetables .. 4 "
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Supper.

Tea .. 1 pint Bread .. 4 oz.	Milk .. 1 pint Bread .. 4 oz.	Tea .. 1 pint Bread .. 5 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "	Tea .. 1 pint Bread .. 6 oz. Butter .. 1 "
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Note.—Drinks for patients are to be made and charged according to the following proportions:—

Barley Water.—Barley, 2 oz.; sugar, 2 oz.; for every 5 pints.

Rice Water.—Rice, 2 oz.; sugar, 2 oz.; for every 5 pints.

2 oz. of pepper may be issued for every 100 diets except tea and milk diet.

3 oz. sugar may be charged for every soup diet in addition to the allowance in scale.

The following rates will be allowed for substitutes:—3 oz. lime juice=1 lemon. 3 oz. rice, or 3 oz. flour, or 8 oz. bread=16 oz. potatoes. 1 oz. preserved potatoes=5 oz. fresh potatoes. 1 oz. preserved vegetables=10 oz. fresh vegetables. 1 oz. codfish=8 oz. tea.

Gruel.—Oatmeal, 2 oz.; and sugar, 1½ oz. to 2 pints.

Lemonade.—Two large lemons; and sugar, 1½ oz. to 2 pints.

1 oz. of mustard may be issued for every 20 beef diets.

FORM OF DIET SHEET

Hospital, at _____ Month of _____, 189_____

DIET SHEET OF	RANK AND NAME.	Corps.	Regtl. No.	Troop, Company or Battery.	Age.	Disease.
Ward No.	Admitted into Hospital the _____ 189 .	Discharged from Hospital the _____ 189 .			CASE BOOK, Vol. _____ page _____	
Religion *						

If allowed up, the hours, and if fit for light hospital duty, state so.	Date.	Diet, first time name in full, afterwards by initials.	DIET DRINKS. Quantities in words.			EXTRAS. Quantities in words.							Initials of Medical Officer (First time, name in full). All spaces in which no entries have been made must be severally ob- literated by the Medical Officer thus _____ before he signs his name or initials.
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I certify that the above diets, drinks, and extras were prescribed by me solely for the use of the above-named patient, for whom I considered them absolutely necessary.

Medical Officer in Charge.

Diets and extras to be filled in daily by the prescribing Medical Officer, and on discharge of a patient a diagonal line to be ruled from last day's diet to right-hand lower corner. The date of discharge is invariably to be filled in by prescribing Medical Officer. No erasures to be made on this Form; any alterations of diet or extras prescribed must be in the handwriting of the prescribing Medical Officer, and initialled by him.

* "Church of England," "Presbyterian," "Wesleyan," "other Protestant not included in the foregoing," or "Roman Catholic," according to the class to which the patient belongs.

warrant officer, with seventy-four non-commissioned officers and men. They are equipped for 200 beds, and are divisible into four independent sections. The number of these hospitals prescribed for an army corps is eight, but the actual number required will depend upon the length of the lines of communications and the circumstances of the campaign.

A general hospital is organised at the base of operations for war. The limit is 500 beds, and the staff as follows: eighteen medical officers, one quartermaster, ten nursing sisters, three warrant officers, and 118 non-commissioned officers and men. If the base is a sea-board, the general hospital may be replaced by a hospital ship or ships.

All these hospitals may consist of buildings, if available, but if not, tents are pitched on suitable sites. The tents are of two kinds—hospital marquees, for eighteen men each (used only at the base), and circular tents, each for four men, but in emergency the numbers may be increased in both cases. The cubic space is small, even with the regulation numbers; in the marquee it is less than 3,000 cubic feet, and in the circular tent less than 500 cubic feet. The latter is to be considered as the usual tent for service, so that each patient would have about 120 cubic feet. The facilities for the free admission of air, however, make up for the restricted space.

In time of war care is taken to keep up the evacuation of the successive lines of assistance, so as to have those nearest the scene of action free for the admission of fresh casualties. In this way, the sick and wounded are moved as soon as practicable to the base, and thence to the transports for return home.

Hospital ships are now constantly employed in war time, both as being themselves excellent for the purpose, and because they can be easily shifted *en bloc* as required. Each ship is equipped for 200 or, on an emergency, 250 patients. When a hospital ship is stationary as a depôt ship, it has attached to it one or more fast steam vessels, each making up sixty beds, to act as relieving ships, to remove the worst cases to England or elsewhere. Despatch vessels, making up thirty beds, will carry the slighter cases to any available packet station to meet steam packets on their way to England, with which arrangements may have been made to carry patients. Each depôt hospital ship will have a small steam transport attached as store-ship. Each hospital ship will also have 400 additional cots with which to fit up transports employed as hospital ships.

NETLEY HOSPITAL.

The Royal Victoria Hospital, Netley, or, as it is designated in the inscription on the foundation stone, The Victoria Military Hospital, is situated on the east side of the Southampton Water, about three and a half miles from the town of Southampton. It is the headquarters of the Army Medical Staff, and the general invaliding hospital of the army, and in it is located the Army Medical School. During the Crimean War, the invaliding hospital at Fort Pitt, which had been in use up to that time, was found too small and inappropriate for so large a body of sick as were sent home, and the Government decided to replace it with as little delay as possible. A special committee was entrusted with the selection of an appropriate site, and accordingly the one on Southampton Water was chosen, chiefly because invalids from abroad might be landed directly on a pier opposite the building, and taken at once into the wards.

The ground consists of gravel overlying clay, but the hospital being built low down near the shore, its foundations rest, if not actually on the clay, at a very short distance above it.

The plan decided upon consisted of a long building with corridors in front, off which the wards open towards the back (north-east). The works were commenced in 1856, in which year, on the 19th of May, the foundation stone was laid by her Majesty the Queen.

The original plan became obsolete before the works were far advanced, and it was suggested to finish the building as a barrack, and to build another hospital on a different site. These recommendations were not carried out, and the building was continued on the original plan.

Seven years were occupied in its construction, and it was only in the spring of 1863 that it was finally opened as a hospital.

The building is of red brick, faced with Portland stone, with plinths of Welsh granite all along the basement. The total length is 468 yards, and it lies nearly north-west and south-east. The front faces the south-west, and is consequently much exposed to the prevalent wind and to gales and rain.

The hospital consists of a central administrative block, and two wings known as the "north and south wings," which contain the

wards. There is a square with lower buildings behind each wing, which will be described hereafter.

In the original plan it was intended that the main entrance should be in the centre block, into a vast hall which should extend back to the chapel situated behind the main building. This was to be surmounted by a large dome, which would have given the whole building an artistic and even majestic appearance. Unfortunately this plan was not carried out. The hall was reduced to a comparatively small size, but with a fine double staircase, which, however, now leads only to the Nursing Sisters' quarters to which there is more convenient access from other parts of the building.

The centre block has a fine façade adorned with columns and ornamentation of Portland stone, and at the pediment may still be seen the rough blocks of stone which were originally intended to be carved after an allegorical design. The hall is now converted into a museum, and contains a small but excellent and typical selection from the valuable natural history collection of the Army Medical Staff.

Behind the hall is an open space in which is situated a large swimming bath. This bath is filled with sea water, pumped by a small engine from the Southampton Water. Adjoining it are warm baths for both officers and men.

On either side of the hall there is another passage which communicates with the main corridor of the hospital on the ground floor. On the north side are the offices of the surgeon-major-general commanding the hospital, of the secretary and registrar, clerks &c., invaliding office, and waiting-rooms.

On the south side are the offices of the Assistant-Adjutant General, the officer commanding Army Service Corps, and their clerks. There is also a staircase leading to the first floor, the greater part of which is occupied by the quarters of the lady superintendent of nurses and the nursing sisters. On this floor also are the paymaster's offices and the orderly medical officers' room.

The second floor contains some quarters for surgeons on probation, quarters for sick officers, the libraries, the professors' room, and the pathological museum.

On the third or top floor are the museums of military surgery and hygiene, the rest of the floor being occupied by quarters for surgeons on probation. In the turret beneath the dome there are a clock, and two huge water tanks for use in case of fire. These tanks are filled by means of a small engine under the chapel, the water being

pumped from an underground tank, which is filled from a surface water reservoir on higher ground at some distance from the hospital.

Immediately in rear of the centre block is the chapel, in which services of different denominations are carried on at separate hours. The denominations which are recognised and provided for are the Church of England, Roman Catholic, Presbyterian, and Wesleyan.

The north wing of the hospital is that which is most constantly occupied. The ground-floor corridor, being practically the general thoroughfare of the building, is used for patients only when the hospital is full. The first floor is appropriated to medical cases and is known as the medical division, and the second or top floor is reserved for surgical cases and is known as the surgical division.

Besides the access at the south end of the wing from the central block there is an entrance door under a porch at the north end. There is also an entrance in the centre of the wing in the front under a handsome peristyle of white stone, opposite which is the entrance to the kitchen and other offices behind. The general arrangement and construction are the same on all three floors of both wings, but the appropriation differs somewhat in detail. On entering from the north door we find, on the left hand, a staircase rather narrow and leading to the upper floors. Beyond this is a large room appropriated as a reading and recreation room for the patients.

On the right hand there is a ward for twelve patients. Looking to the front there is a similar ward at the opposite end, and the same arrangement exists on each floor of both wings. These twelve wards are the only wards which face the front and get any sunlight, except for a short time in the very early morning. The dimensions of these wards are—length 48 feet 2 inches; breadth 23 feet 1 inch; height 15 feet; this gives $92\frac{1}{2}$ square feet of floor space and a gross amount of 1,389 cubic feet per bed. If, however, we reckon nothing above 12 feet in height, the net cubic space per bed after corrections would be 1,100 cubic feet.

Proceeding farther along, we come into the lighted part of the corridor, the side facing the front having a row of large windows 13 feet by 9 feet. On the left hand is a series of small wards for nine beds each, entering from the corridor, from which they borrow their light at that end by means of a glass door and two windows. At the opposite end the windows look out on the square behind. The dimensions of these wards are as follows: length 35 feet 4 inches, width 23 feet 10 inches, height 15 feet. This gives a floor

space of nearly 94 square feet, and a gross cubic space of nearly 1,400 cubic feet per bed ; but if we reckon only to 12 feet in height, the total net space may be taken at 1,100 cubic feet per bed. Alternating with each pair of nine wards are small rooms appropriated for the use of orderlies and nursing sisters, and also for offices, testing rooms, and other purposes. From these small rooms access to the flues &c. is obtained through an iron door. At the south end of the wing we find on the right hand to the front a twelve-bed ward as already described : on the left hand, looking to the back, is a ward for fourteen beds considerably to the rear of the corridor line. The dimensions of this ward are : length 48 feet 2 inches, width 35 feet 10 inches, and 15 feet high. These dimensions give 123 square feet of floor space and 1,854 gross cubic feet per bed ; if we count only to 12 feet in height, this gives about 1,470 cubic feet corrected. In the corner of the space in front of this ward is placed a hydraulic lift : the dimensions of the rising room are 11 feet in length, 8 feet 1 inch in breadth, and 7 feet 2 inches in height. It is intended to carry twelve persons standing and of course a smaller number on stretchers. The total height which it ascends is 33 feet 8 inches. This is practically the only access by which a patient on a stretcher can be taken to or from the upper floors, as the staircases are too narrow and badly formed.

On the first floor (the medical division) the distribution is the same, except that the recreation room is replaced by a fourteen-bed ward and a space in front of it.

On the second floor (the surgical division) the fourteen-bed ward of the southern end of the wing is replaced by the lecture-room, which is also used as an operating theatre.

The arrangements in the southern wing are similar, except that there is no lecture-theatre and that the south end of the ground floor is occupied by the sergeants' mess.

The kitchens are two in number, one for each wing, each forming respectively the centre of the west side of the barrack square behind. Each kitchen is supplied with a Benham's large cooking range, capable of furnishing 500 diets a day each. The diets are cut up on a hot plate heated by steam, and are sent up by a lift to the dining-rooms, where the patients who are not confined to their wards take their meals together.

The heating of the wards is carried on by Galton's stoves, one for each small ward, and two for each of the larger ones. The corridors were originally heated in the same way, but the plan being

found insufficient, hot-water coils have been introduced into the medical division, and will probably be extended to the rest of the building.

The ventilation arrangements consist of cold-air inlets, through perforated bricks externally, delivering into the wards by hopper-shaped inlets near the ceiling. There are also the warm-air inlets from the Galton stoves. The foul air passes out through a perforated opening in the ceiling above the gasolier, and finds its exit finally through a channel surrounding the smoke-flue of the Galton grate. The windows looking directly to the outside are double, so that a certain amount of ventilation is obtainable in this way. The windows looking into the corridor swing on central pivots, but through these it is of course merely the air from the corridor that enters, which is necessarily by no means pure. The ventilation is hardly sufficient, and under the circumstances of construction a really efficient system would be exceedingly difficult to carry out.

The drinking water is obtained from two deep wells on the premises, and is fairly good. There is another supply of water, for other than drinking purposes, obtained from the surface reservoir already mentioned.

The drainage is carried out by pipes running from north to south behind the hospital, and uniting into one large sewer which delivers direct into the Southampton Water. All sinks and waste-pipes are disconnected. The closet arrangements are of the Jennings pattern, but the "Unitas" closet is being gradually introduced in replacement of the older form.

The two squares behind the hospital consist of one- or two-storied buildings, which comprise various offices, quarters, barrack-rooms &c. as well as the mortuary and the laboratories for the Army Medical School.

The other buildings in the grounds consist of the following :—

1. The officers' mess and quarters for the medical staff.
2. The principal medical officer's quarters.
3. The lunatic hospital, with from 60 to 70 beds, intended to accommodate soldiers sent home as lunatics, during the period of observation.
4. A group of cottages, partly occupied by non-commissioned officers and their families and partly by the families of patients undergoing treatment in the hospital.
5. The washing establishment, to which is attached a disinfecting chamber.

6. The gas-factory, with a few detached offices and quarters.

The hospital was originally intended for 1,080 beds, but some of the premises arranged for patients have been re-appropriated for other purposes. There are actually only 978 beds available. The fixed staff of officers consists of medical officers, including the assistant professors of the Army Medical School. To these may be added the professors of medicine and surgery, who are the heads of their respective divisions.

The medical staff corps consists of three quartermasters and 209 non-commissioned officers and men, the whole being under the command of the surgeon-major-general. There is also a staff of nursing sisters, consisting of one lady superintendent and twelve sisters. This is the fixed staff, but the numbers are increased according to circumstances.

The surgeons on probation who attend the Army Medical School also do duty in the wards under the supervision of the medical staff. The numbers vary with the requirements of the service, and attendance is only given during eight months of the year, when the Army Medical School is in session.

THE HERBERT HOSPITAL, WOOLWICH.

This hospital was the first large hospital built for troops in this country on the principles laid down by the Barracks and Hospitals Commission. The necessity for rebuilding the garrison hospital at Woolwich was taken advantage of, and the pavilion hospital was designed by Captain (now Sir) Douglas Galton, R.E., F.R.S.

The site selected was on Kidbrook Common, near Shooters Hill, on an elevation about 235 feet above ordnance datum.

The total area of the ground is 523,500 square feet, and the area actually covered by the buildings is 74,459 square feet—respectively 800 and 115 square feet per bed for a total of 650 patients.

The aspect of the front is S.S.W.

The buildings consist of an administrative block, running nearly east and west, and seven pavilions running nearly north and south. The central pavilion immediately behind the administrative block is occupied by the library and reading-room, the chapel, chaplains' quarters, kitchen, and offices. There is also a day-room, over which is a ward for twenty patients. The pavilions on either side of the centre are shortened at the south end. In one is the pharmacy

and in the other are bath-rooms, below which is the boiler-room for supplying hot water to the whole establishment. In the north end of each of the pavilions are two wards of twenty-one beds each.

Of the other pavilions, two contain four wards of thirty-two beds each; whilst one contains four wards of thirty-two beds each, an operating theatre and two wards of one bed each for special cases. At the west side is an annexe containing five separate wards, and at the east side is the operating theatre: outside on the ground level is the mortuary. The wards are all on the ground and first stories, the basements being occupied as stores and for various other purposes, except in the north end of one pavilion, where there is a small ward for itch cases.

The arrangement and dimensions of a ward are as follows: Total length 119 feet, total breadth 26 feet, area 3,094 square feet: this for thirty-two patients gives $96\frac{2}{3}$ square feet per bed. Total height 14 feet; cubic contents, gross, 43,316 cubic feet, or corrected with the necessary additions and subtractions, 44,355 cubic feet: this gives 1,386 cubic feet per bed, a space which is more than the regulation amount, viz.: 1,200 cubic feet. But if we reckon the height as 12 feet only, the net space is but 1,188 cubic feet, almost identical with what is prescribed by the regulations.

The walls are covered with Parian cement, and the floor is of closely fitted oak battens, resting upon sleepers laid on iron joists and concrete. The floors are thus impervious to water and deadened to sound: holes round the skirting permit of a current of air immediately under the wooden surface, which is oiled and beeswaxed.

The walls themselves consist of an outer portion 9 inches thick, an air interval of 3 inches, and an inner portion 14 inches thick, the two portions being joined with Jennings's vitrified bonding bricks.

The means of ventilation, warming, and lighting are as follows:—

One folding door, swinging, with movable windows above; one large window at opposite end of the ward, sixteen opposite windows in sides of ward, that is one window between every two pairs of beds; two stoves in the centre line of the room, with flues and with a warm-air casing, supplied by air-bricks from the outer air; eighteen air-bricks opening into the ward by Sheringham valves; four louvres (W.O. pattern) at the four corners of the ward, com-

municating with extraction shafts; four gas globe pendants, three jets in each, with an outlet tube round the gas pipe.

In addition to the ward stoves there is a hot-air coil in the lavatory and closet. The lavatories and closets are at the far end of the ward, the nurses' room, scullery, and staircase at the near end of the pavilion.

The total amount of ventilation opening (inlet and outlet) per head is about 23 square inches, exclusive of doors and windows, but including the stove flues.

Direct ventilation experiments* made by the late Professor de Chaumont, F.R.S., showed that the average amount of effective air movement (as calculated from the CO_2) was 4,830 cubic feet per head per hour in the ground floor wards and 3,670 cubic feet per head per hour in the first-floor wards. The experiments were made during the month of November, and show that the ventilation is good.

The lighting is by gas supplied from the Royal Arsenal works.

The water supply is from the Kent Waterworks Company, and is obtained from wells in the chalk. The water is pumped into a cistern at a level about 90 feet above the roof of the hospital. It is a hard water, but is softened by the chalk process at the Herbert Hospital Waterworks before distribution.

The initial cost of the Herbert Hospital is stated at £220,884, which, for a full complement of 650 beds, gives £340 per bed—a price by no means extravagant for so satisfactory a result.

PORTSMOUTH STATION HOSPITAL.

This may be taken as a sample of a hospital built before the adoption of the pavilion system. The following outline will give an idea of the construction:—

The building has three stories, the ground floor being used for offices &c., and only the two upper floors containing wards for patients. These are arranged in pairs on either side of a passage. There are four passages which open upon the verandah.

There are eight wards on a floor and two small wards at the ends. The six middle wards have windows to the verandah, and all the eight have windows on the back or south-east front. The two end wards have windows at the side, the north-west ends being blocked by the small wards.

* *Army Medical Department's Reports*, vol. vi. pp. 410-417.

Each of the main wards has the following dimensions—total length 48 feet, total breadth 22 feet, height 11 feet, superficial area 1,056 square feet, gross cubic space 11,616 cubic feet. As the necessary additions and deductions to these last figures very nearly balance one another, we may take 11,600 cubic feet as the net space.

These wards were originally intended for seventeen men, each of whom would in that case have 62 feet of floor space and 682 cubic feet of air space. This is obviously much too small an allowance for modern requirements. The utmost number that could be properly accommodated is only eleven patients, allowing 96 square feet of floor space and 1,054 cubic feet per head. Even this is short of the requirements of the standing regulations, which allot 1,200 cubic feet per head. Ten would therefore probably be a safer number.

In the six middle rooms the means of ventilation are as follows:—

Three Louvres, one above and one on each side of the door opening into the passage; each 168 square inches.

Four Sheringham Valves at the door ends of the ward, each 27 square inches.

Two Arnott's Ventilators in chimney breast, each 18 square inches.

Two Outlet Shafts in ceiling, each 72 square inches.

Two Chimneys, each 72 square inches.

Four Outlets over the gas-jets, each about $1\frac{1}{2}$ square inch.

Allowing for friction and various obstructions, the net amount of ventilation opening, both inlet and outlet, is 582 square inches; this when divided by 17, the full complement of patients, gives 34 square inches per head. Some slight differences exist in the two end wards, by which the total area of opening is a little reduced, giving only 28 and 29 inches per head. If the number of patients in each ward does not exceed ten, then the amount, about 50 square inches per head, would be sufficient.

The imperfections of such wards are very obvious, viz. :—

1. Having the longest diameter between the windows, so that free perfation becomes impossible.

2. Each pair of wards opening off a common lobby from which some of the ventilation is derived.

3. The ends of the wards connected with a common verandah, although the latter is open in front.

The amount of ventilation opening, although apparently fair, fails in providing a proper delivery, distribution, and extraction of air. This was shown by the fact that the mean amount of incoming

air when measured by the anemometer was (by De Chaumont's experiments) 13,000 cubic feet, and of outgoing air 29,000 cubic feet per ward ; say, an average movement of 21,000 cubic feet per ward per hour. Calculating the effective ventilation from the CO₂ observed, the movement did not exceed 13,000 cubic feet. This showed that the air was changed only 1·1 time per hour, and that each man (with the full complement) would have got only 775 cubic feet per hour, or (with only ten patients) 1,300 cubic feet—a quantity falling far short of requirements. Unfortunately this faulty plan of construction has been carried out in many instances, as, for example, with some additional disadvantages, in the Royal Victoria Hospital at Netley—the last example, it is to be hoped, of such a system.

STATION HOSPITALS IN REGIMENTAL DISTRICTS.

Under the Military Forces Localisation Act, regimental hospitals have been abolished, and in each regimental district a hospital is provided, the equipment and *personnel* of which is permanent.

The Hospital (see plan) consists of a single block of building of two stories, one end containing the various offices, including surgery, kitchen, waiting-room, orderlies' room &c., and the other end containing the wards. There are two main wards, one above the other, each for twelve patients. These wards are 47 feet long and 24 feet wide (giving 95 square feet per head), and 14 feet high (giving 1,325 cubic feet per bed). The arrangements otherwise resemble those of the Cambridge Hospital at Aldershot, except that one turret serves for lavatory, bath, urinal, and closet.

On the upper floor above the surgery there is a small ward for two patients. Its length is 17 ft. 4 in., and breadth 13 ft. 1 in., giving 227 square feet (or 113 per bed) of floor space, and a total cubic space of 3,178, or 1,589 cubic feet per bed.

REGENT'S PARK BARRACKS HOSPITAL.

This is another example of a small military hospital, the building being arranged for fifty-nine patients. It is in fact two complete small hospitals in one building. It has a centre block of two stories containing the usual offices, but the kitchen department is thrown out behind in a small separate block, communicating with the main buildings by means of corridors. The size of the main

wards is almost identical with those of the regimental district hospitals, but the turret for the closets &c. is projected from the near end of the ward (adjoining the administrative block) instead of from the far end.

The wards are in two wings, right and left, on two floors. There are besides on the first floor, above the surgery, two small wards, length 14 ft. 6 in. by 13 ft. 6 in., for one or two patients, giving 196 square feet of floor space, and 2,740 cubic feet for one patient, and half this amount if the place be occupied by two patients.

There is also an infectious ward above the kitchen, 24 ft. 7½ in. long, by 19 ft. 9 in. broad, giving an area of 486 square feet, and a capacity of 6,810 cubic feet. It is intended for three beds, each of which would have 162 square feet of floor space and 2,270 feet of cubic space.

The actual initial cost is stated at £8,872, or £150 per bed, a sum which may probably be taken to represent the cost of such small hospitals.

CAMBRIDGE HOSPITAL AT ALDERSHOT.

For many years the hospital accommodation at Aldershot consisted of wooden huts, some specially built for the purpose, but others simply the ordinary barracks appropriated. In 1878-79 the Cambridge Hospital was built, and in July 1879 it was first occupied.

It is now the chief hospital of the camp, as well as the headquarters of the training depôt of the Army Medical Staff and Medical Staff Corps. It is situated in the South Camp. The staff employed varies, but the usual number is—one brigade-surgeon-lieutenant-colonel, one surgeon-lieutenant-colonel or major, and six surgeon-captains. Of the Medical Staff Corps there are usually one sergeant-major, two staff sergeants, two sergeants, six corporals, and fifty privates. There are also three sisters, viz. one superintendent and two nursing sisters.

The general plan of the hospital is similar to that of the Herbert Hospital at Woolwich, there being an administrative block in front, with a series of pavilions behind at right angles to the axis of the administrative block. The plan shows the ground floor and one ward of the hospital. This hospital is smaller than the Herbert Hospital, having space for only about one-half the number of patients, viz. 270 beds, of which about 236 are usually in occupation.

The pavilions are for the most part single, or with only prolongations on the rear side of the general corridor. On the ground floor there is accommodation for 148 patients, viz. five large wards for twenty-four each, one ophthalmic ward for eight patients, and one pavilion ward divided into three small wards for ten, six, and four patients respectively. The central small pavilion is occupied by the library and the dining-room, the former being 24 ft. 9 in. by 23 ft. 8 in., and the latter 32 ft. 4 in. by 23 ft. 8 in., with folding doors between them. There are also four separate rooms for sick officers on the near side of No. 1 pavilion.

The central corridor, communicating with the pavilions, is 10 ft. 9 in. wide, and 14 ft. 9 in. high. It is well lighted by windows along the sides, and from it steps descend into the garden. It is heated by hot-water pipes and coils.

The large wards are 91 ft. 4 in. by 24 ft. 5 in., giving a floor space of 2,230 square feet, or (for twenty-four patients) 93 square feet per bed. The height is 14 feet, giving a total cubic space of 31,220 cubic feet, or 1,300 cubic feet per bed. The wall space per bed is 7 ft. 7 in.

There are six windows on each side of the wards. At the one end of the ward there is a scullery on one side, and an orderlies' or nurses' room on the other. At the other end there is a large window, and at the two corners the entrances to the lavatory and bath-room on the one side, and to the urinal and closets on the other. The vestibules are four feet wide and have cross-windows. The arrangement thus differs from the Herbert Hospital in having the lavatories and closets in small turrets, more completely separated from the wards. The lavatories are heated by a coil supplied by a hot-water pipe running under the floor of the ward. The ward itself is heated by two stoves, supplied with air from without, which is heated in a jacket round the stove. The ventilation is effected by means of louvred openings, of which there are seven in each side of the ward. There are also two foul-air extraction shafts. The lighting is by gas.

The space allotted in the ophthalmic ward and prisoners' ward is 94 square feet and 1,316 cubic feet per bed; in the ten-bed ward of No. 3 pavilion, it is 98 square feet and 1,372 cubic feet; in the six-bed ward, it is 113 square feet and 1,582 cubic feet; in the four-bed ward, 93 square feet and 1,302 cubic feet as in the large wards. Each sick-officer's room is 13 ft. 1 in. by 11 ft. 6 in., giving 155 square feet and 2,170 cubic feet. The operating theatre is on the

near side of the corridor opposite No. 6 pavilion. The height of the wards varies between 13 ft. 11 in. and 14 ft. 3 in., about 14 ft. as an average.

The water supply is from large reservoirs situated at Bambury Bottom, two miles distant, and is conveyed in pipes. The water-closets are Jennings's patent, and the sewage is carried off by pipes to the sewage farm.

MILITARY HOSPITALS IN INDIA.

The Barracks and Hospitals Commission recommended that the following space should be allowed for each sick man in hospital—Superficial area, 100 square feet up to 120 in unhealthy districts; cubical space, 1,500 feet, or in unhealthy districts 2,000 feet.

Later experience has, however, shown that even greater space is desirable, and the Indian Army Regulations prescribe 102 to 120 square feet of superficial area, and from 1,630 cubic feet of space (in the hills) to 2,400 (in the plains). The Commission also directed that hospitals should consist of two divisions—first for sick, and second for convalescents; this latter division to hold 25 per cent. of the total hospital inmates. Each hospital was to be built in blocks, consisting of two floors; the sick and convalescents were to sleep on the upper floors only; and each block was to hold only twenty to twenty-four beds. The principles and other details are identical with those approved for home stations.

Convalescent depôts are now established at certain hill stations for affording a change of climate to soldiers, together with their wives and families, who are likely to be benefited by such a change.

MEDICAL DEPARTMENT, ROYAL NAVY.

The constitution of the medical department of the Royal Navy resembles that of the Army in the grades of officers and in some of its details. Its head is the Medical Director-General at the Admiralty. The following are the grades of officers: Inspector-General of Hospitals and Fleets, ranking as rear-admiral; Deputy Inspector-General of Hospitals and Fleets, ranking as post-captain—these officers in time of peace do not serve afloat, but in hospitals at home or abroad; Fleet Surgeons, ranking as commanders; Staff Surgeons, ranking as lieutenants of eight years' service;

Surgeons, ranking as lieutenants under eight years' service. These officers serve both ashore and afloat.

The medical officers of the Royal Navy furnish also the Medical Staff of the Royal Marines and Royal Marine Artillery.

The attendants on the sick (or male nurses) are not seamen, but specially trained civilians. Recently nursing sisters have been experimentally introduced into the larger hospitals.

Candidates for the medical service of the Royal Navy are admitted by open competition in the same way as in the Army. The examination takes place in London, and is conducted by a specially selected board of examiners. For ten years (from 1871 to 1881) candidates received their special training at the Army Medical School at Netley. Since that time the training has been given at Haslar, an arrangement more in accordance with their future career.

Afloat, each ship has its own sick bay and hospital equipment ; but at the great ports at home and at the principal stations abroad there are permanent hospitals. These hospitals have always been models of cleanliness and administration, whilst they have also been more replete with comforts for the inmates than military establishments of the same kind have been until quite recent times.

The following are the chief medical establishments of the Royal Navy :—

At Portsmouth.

Haslar Hospital at Gosport.
Forton Marine Infirmary at Gosport.
Eastney Marine Infirmary at Southsea.

At Plymouth.

Royal Naval Hospital at Devonport.
Royal Marine Infirmary at Devonport.

At Chatham.

Melville Hospital ; formerly Marine Infirmary

At Yarmouth.

Royal Naval Hospital for Lunatics ; formerly hospital for the North Sea Fleet.

There are also small hospitals at Portland and at Haulbowline, and a marine infirmary at the Recruit Dépôt at Walmer.

Abroad, there are hospitals at Malta, Lisbon, Halifax, Bermuda, Jamaica, Cape of Good Hope, Trincomalee, Hong-Kong, Esquimalt, and Yokohama.

A description of the great hospital at Haslar will serve as a sample of naval hospitals.

HASLAR HOSPITAL.

This is the chief naval hospital in England, and is situated in the parish of Alverstoke, Hants, immediately south of Gosport, from which it is separated by a narrow creek. The ground on which it stands is bounded by this creek on the north and by Portsmouth Harbour on the east. On the west is the gunboat yard, and on the south stands the Military Station Hospital. The total area of the hospital grounds is $58\frac{1}{2}$ acres; if fully occupied this would give 1,450 square feet per head, but under usual circumstances each occupant has 2,772 square feet.

The hospital forms three sides of a square, the south-western side being open. Each is over 500 feet in length, and the contained quadrangle is about 400 feet square.

It was originally intended that the square should be completed, but fortunately that has never been carried out, so that the only building on the south side is the Church of St. Luke, which is the chapel of the hospital.

Each of the sides is divided into two sections, and each section is double. The original intention was that the building should contain 2,000 beds, but it is probable that that included the proposed south-western side, which has never been completed. At present it is calculated to hold 1,500 patients when quite full, but some of the wards have been re-appropriated. The average number under treatment is from 700 to 800, including sick officers, for whom there is ample and complete accommodation.

All naval officers, on full, half, or retired pay, are admitted if sick, and receive everything necessary for their care, attendance, board, &c., at a fixed stoppage of 2s. 6d. per diem. Besides sailors of the fleet, pensioners, marines, and men employed in the dock-yards are also admitted for treatment.

The hospital is the largest in this country, if we reckon by the number of beds; and the reason of so large a number of beds being provided is said to have been the number of cases of scurvy occurring in the fleet in the last century, the time of building being

from 1746 to 1762. The plan has been ascribed to various authors, but it is really unknown to whom it is due.

The entrance is by a gateway in the centre of the north-east front, and on each side of it are the offices of the administration. The upper part of this central portion was apparently originally intended for the chapel, but about fifty years ago or more it was divided into two stories and converted into wards, which must have been very inconvenient in shape and size, being about 90 feet by 50 feet in area, and $9\frac{1}{2}$ feet in height.

The difficulties of ventilating and warming were very great, but a change has been made, by which the wards have been divided and a corridor run through the centre of each floor, thus giving freer ventilation to that part of the building. On the top story a kitchen has been constructed—a magnificent apartment, well lighted and ventilated, with both skylight and side windows. The floor is tiled throughout. No coal is used, the cooking being done entirely by gas or steam, with Benham's most recent apparatus. The rations, when divided, are put in jacketed (hot-water) tins and laid on a heated table until it is time to send them downwards by the lift.

On either side of this central block runs a double wing with a space of thirty-five feet between the front and back portions. At each corner there is an octagonal space, to which there is direct access from the open air above.

An open verandah, broad, and fronted with brick arches towards the quadrangle, runs round the building. The east and west sides are similar in construction, consisting of two double wings, with a central portion lower than the wings. This central part on the east is occupied by the museum and library, and on the opposite side by the officers' mess, the chemical laboratory, and various offices. The north-east side of the building and the northern halves of the other two sides are appropriated to general medical and surgical cases; the south end of the south-east side to zymotic diseases; and the south end of the north-west side to venereal cases.

The main buildings are 52 feet high to the ridge of the roof, and are divided into ground, first, second, and third or attic floors. The upper stories are reached by fine old staircases of oak at each end. The wards on each floor open into one another from end to end of the section. Each ward is for fourteen patients, and is 60 feet long by 24 feet wide, and is 12 feet in height on ground and first floor, and 10 feet on second floor. The floor space is thus

105 square feet, and the cubic space 1,260 cubic feet per bed, or 1,050 cubic feet on the second floor. The front windows look into the quadrangle or the grounds outside, whilst the back windows in each case look into the space between the two rows of the section. There are six windows along the front wall and one to the back. The walls are plastered and coloured, and the floors are of ordinary deal; but a beginning has been made of an improved method, by which some of the wards have been laid with well-fitting teak flooring, and the walls and ceilings painted with asbestos paint. The only means of ventilation apart from windows and fireplace are Sheringham valves along both walls and an Arnott's valve in the chimney-breast. The warming is simply by an open fireplace.

The closet arrangements appear to have been originally very primitive, consisting merely of privies with a shoot into a receptacle below. Later on iron pipes replaced the wide shoot, and pan-closets were introduced. Subsequently the receptacles were abolished, and wash-out closets were substituted, the drainage being collected in a large sewer and carried out to sea. Before the improved drainage was carried out a few years ago, enteric fever broke out from time to time. The alterations were made at a cost of £16,000.

The water supply is ample from a well in the adjoining gunboat yard about 320 feet deep. The water is pumped to a high and handsome water-tower, recently constructed, with a head of water sufficient to throw water over the highest part of the building.

The washing establishment, mortuary &c. are situated near the boundary wall on the south-west side.

The site on which the hospital is built is gravel to some 40 feet, below which are strata of clay and sand alternating, until at 737 feet the Reading beds are reached, and continue down for 100 feet before the chalk makes its appearance.

The staff of the hospital consists of an inspector-general of hospitals and fleets, two deputy inspectors-general, two fleet or staff surgeons, and four or five surgeons. As attendants on the sick there were formerly only male nurses, but recently female nursing has also been introduced, both at Haslar and at Plymouth and Chatham. The staff at Haslar consists of a lady superintendent and eight nursing sisters.

Haslar is also the home of the Naval Medical School, through which all young surgeons entering the Navy have to pass. Besides

doing duty in the wards of the hospital, they pass through a systematic course of lectures on hygiene in connection with naval duties, with practical work in the chemical and microscopic laboratory, as well as demonstrations on board ships and in the dockyard. The course lasts about four months, after which the young surgeons are drafted off to other stations or ships as required.

UNITED STATES OF AMERICA.

The medical department of the United States Army consists of one surgeon-general, with the rank of brigadier-general, one assistant surgeon-general, one chief medical purveyor, and four surgeons with the rank of colonel; two assistant medical purveyors, and eight surgeons with the rank of lieutenant-colonel; fifty surgeons with the rank of major; and 125 assistant surgeons, with the rank of first lieutenant of cavalry for the first five years of service, and of captain of cavalry subsequently until their promotion by seniority to a majority. With the rank stated in each case the pay and emoluments of the rank are associated. Retirement is compulsory at the age of sixty-four years.

On appointment a medical officer is assigned to duty for a few months at some large post where there are other officers of his department, to afford him opportunities of becoming acquainted with the requirements of army regulations and the routine duties of military life.

Candidates for the Army Medical Corps have to pass an examination conducted by the Army Medical Board of Examiners before admission to the service. The examination is a strict one, and embraces general literature and general science, and any candidate found deficient in these branches is not further examined. If he is successful in the first part he is then subjected to a rigid professional examination. The system is an excellent one, and aims at making the Medical Corps a scientific one by raising the standard of general education. We can testify from personal knowledge that the system has proved completely successful.

MILITARY HOSPITALS, UNITED STATES.

The American military hospitals were brought into existence during the civil war, 202 hospitals having been constructed, with accommodation for 136,894 patients. The hospital buildings

used in the beginning and on occasions of emergency throughout the war had been erected for other purposes, public buildings, schoolhouses, churches, hotels, warehouses, factories, and private dwellings being fitted up as circumstances required ; but gradually wooden pavilions came into use, and ultimately the majority of the general hospitals belonged to this class. A very large proportion of them were merely temporary structures. The American War Department circular, of the 20th of July, 1864, gave briefly the following instructions for the building of hospitals :—

1. The site of the hospital should be a well-drained elevated plain, with a subsoil of gravel.

2. General hospitals to be constructed on the principle of detached pavilions, each ward being a separate building with beds for sixty patients.

Besides the wards, detached buildings to be made for administrative purposes, connected by covered corridors with open sides.

3. Each ward to be a ridge-ventilated pavilion, 187 feet by 24 feet. At each extremity two small rooms, 9 feet by 11 feet, to be partitioned off for nurses' room, closet and medicine store. The ward to be 14 feet high to the eaves. A ward thus constructed will accommodate sixty patients, allowing more than 1,000 cubic feet to each.

4. Water supply to be managed by the erection of a large tank, kept supplied from wells or springs by a steam engine.

5. When the water supply is adequate, water-closets may be constructed in one of the small rooms attached to each ward, but otherwise privies to be built at a convenient distance and emptied every night.

In the American Army, the War Department places the entire control of military hospitals under the medical officers.

The military hospitals now generally erected are small buildings, containing from twelve to forty-eight beds each, the number of men at most of the military posts being from 100 to 500.

The regulation plan for a hospital of twenty-four beds consists of a two-story central, with lateral one-story wings, each containing a twelve-bed ward.

Projecting from the rear of the main building, or else in a separate building in the rear, are the kitchen and dining-room. At permanent posts the hospitals are built of brick or stone ; at temporary posts, of wood. At small posts in the south, and especially

in malarious districts, the hospital is a two-storied building with a twelve-bed ward on the upper floor.

The wards have ridge ventilation in summer; in winter this is usually closed. The heating in the permanent brick hospitals is by steam or by furnaces; in the wooden hospitals it is usually by stoves. These latter hospitals are, as a rule, built by contract, and are well adapted to their purpose.

In all these hospitals the superficial space allowed is 90 square feet, and the cubic space 1,080 cubic feet per bed.

The supply of furniture, instruments, books, and hospital stores is a very liberal one, and the money voted by Congress for this purpose is under the control of the Surgeon-General of the Army. All plans for the construction and repair of hospitals must be approved by him.

The following are the arrangements in a few of the principal military hospitals in the States.

THE LINCOLN HOSPITAL, WASHINGTON.

This hospital is situated on a gently undulating plain. The soil is a light sandy loam resting on gravel.

The hospital covers thirty acres of ground, and consists of twenty detached pavilion wards, arranged *en échelon* in the shape of the letter V, the apex of which looks to the west. The administrative building is at the apex of the V. The buildings for kitchen, dining-rooms &c. are in the space between the sides of the letter. The whole is surrounded by a picket fence 5 feet high, between which and the wards is a wide road for ambulances. The wards are pavilion-barracks, built of rough boards, whitewashed, with roofs of boards, covered with tarred paper.

Each pavilion is 187 feet long by 24 feet wide, and 16 feet high to the eaves and 20 feet to the ridge, at which there is ridge ventilation throughout the whole length of the ward. The walls are plastered on the inside for about 8 feet above the floor.

At the west end of each pavilion are four rooms 15 feet in length. These are used for clothing, baths, nurses, &c. Four ventilating gratings, at regular distances in the floor of the ward, communicate by wooden flues under the floor with the air outside, thus giving a full supply of fresh air whenever the weather requires the doors and windows to be closed. With sixty-two patients there are 72 square feet of floor, and 1,447 cubic feet of air space

for each. Thirty-one beds are arranged on each side, with a chair and bedside table between each pair. A passage of eleven feet is left between the two rows of beds. The wards are lighted at night by kerosene lamps, and heated by stoves in winter.

On the inner side of the two wings of the hospital, and running the whole length of each, is a raised covered corridor, on which is laid a railway track two feet wide and 2,156 feet long. Box-cars convey the food from the main and extra kitchens to each ward. The administrative building at the apex of the triangle contains the dispensary, offices, and clothing and linen store. Within the triangle is the tank, containing 12,000 gallons of water, resting on a platform 25 feet high.

The nurses' dormitories, kitchens, and operating-room are in separate buildings, as are also dining-rooms capable of seating 860 men. The medical officers' quarters are on the base line of the triangle.

The hospital could accommodate 1,240 beds in the sixty wards, and its total capacity was at one time 2,575 beds, but some of the patients on that occasion occupied tents and a branch barrack a short distance off.

Harewood Hospital, Washington, was constructed on a similar plan to that of Lincoln Hospital.

SEDGWICK HOSPITAL, GREENVILLE, NEW ORLEANS.

The site on which this hospital is built is flat, sloping from the Mississippi, and the soil is a rich black alluvium. The hospital is composed of fifteen one-storied pavilions, each 145 feet by 24 feet, and an administrative building 145 feet by 40 feet, radiating from the periphery of a circular covered way, in the centre of which are the buildings for kitchens &c.

Outside the circle, at convenient distances, are detached buildings for chapel, cooks' and nurses' quarters, laundry, gas-house, bake-house, mortuary, reservoir, and stables. All these buildings are constructed of boards set upright and battened, the roofs being shingled and open at the ridge for ventilation. They are raised three feet above the ground on brick piers. The covered way which connects them is twelve feet wide.

The ward pavilions have two small rooms partitioned off at each end, leaving a space in the centre 115 feet by 24 feet, for patients.

There are two beds between each pair of windows, and the

number of beds is forty to the ward. The dimensions allow 69 square feet of floor and about 1,200 cubic feet of space to each patient. Three of the small rooms are used as sleeping apartments for nurses ; the fourth is divided into bath-room and water-closet.

Water is obtained from a reservoir on the river bank for washing &c. For drinking purposes rain-water is collected in a central cistern which holds 150,000 gallons, and in smaller cisterns at the end of each ward. The water is carried from the roofs by rain-gutters and pipes.

For purposes of drainage, the grounds are graded from the centre of the circle towards the periphery with a descent of 1 inch in 10 feet ; the surface-water flows at the periphery into brick sewers, which also receive the sewage from the water-closets, kitchen &c. by pipes. The several sewers unite into a common trunk, by which the sewage is carried far to the rear of the hospitals, into swampy land. The hospital is heated by stoves in which coal is burnt, and lighted by gas.

THE HICKS HOSPITAL, BALTIMORE.

This is one of the most complete of the hospitals built during the war. It is arranged in a semicircle in which the wards radiate from a covered way.

The wards are built and ventilated as directed in the circular of the War Department. They are plastered inside, lighted by gas, warmed by stoves, and receive their water-supply from the city waterworks.

In the water-closets, the excretions are received into troughs into which runs a stream, and which are emptied by withdrawing a plug several times daily. Sewers carry offensive matters entirely away from the hospital.

THE SOLDIERS' HOME HOSPITAL, WASHINGTON.

This is a fifty-bed hospital, built of brick, and consists of a central executive building, two wings, or pavilions for wards, and towers at the distant ends of the pavilions for ward offices.

The kitchen and laundry are placed in the third story of the executive building, thus avoiding back or out-buildings, and contributing to ventilation. The building is warmed by hot-water

pipes, and the fresh-air supply is provided by a brick duct, 6 ft. square, under the building, and giving off a branch to each coil.

Ventilation for the pavilions is effected by two chimneys, 6 ft. square and 100 ft. high, in the centre of which runs a smoke-flue. Into the aspirating space in these chimneys open the foul-air flues, which are tubes 4 ft. wide by 12 in. deep, running from end to end beneath the floor, under the centre of the ward. These flues or boxes have registers opening into the ward above through the floor, and into the ward below through the ceiling. These registers close air-tight, so that the air from any ward can be taken out, either above or below.

The end towers have independent ventilation. The water-closets are ventilated through the seats, except in one set, where Jennings' closet is placed for the purpose of comparison.

FORT BROWN, TEXAS.

This hospital is a handsome brick building, built in 1869. A covered verandah 9 ft. wide surrounds the entire building.

Extending laterally from the executive building, and separated from it by a covered archway 10 ft. 3 in. wide, are the wards, each of which is 24 ft. by 66 ft. The height is 14 ft. Each ward is intended for twenty-four beds.

These wards afford sufficient accommodation for the sick of the command. A constant breeze blows through each ward, thus securing perfectly free ventilation. Each ward is ventilated by thirteen windows, as well as by a door on one side and doors at each end. There is also ventilation through the ridge by lattice-work in the ceilings.

The windows are 11 ft. 6 in. high by 5 ft. wide, and are furnished with Venetian blinds opening down to the floor. In the winter months a large wood-stove is used in each ward, which gives sufficient heat.

THE PRESIDIO OF SAN FRANCISCO.

This hospital is a two-story building 80 ft. by 40 ft., with a wing 35 ft. by 22 ft. on brick basement, and with porch in front and small inclosure behind.

It is arranged for fifty beds, to each of which it gives an area of 76 square feet and 1,025 cubic feet of space. The average number of patients is nine.

It is divided into four wards, each 40 ft. by 22 ft., and 14 ft. in height, a smaller ward for prisoners, 20 ft. by 10 ft. and 13 ft. high, and an attendants' room, 20 ft. by 18 ft. and 13 ft. high. Each is furnished with water-pipes and marble basin, wardrobe, bedside tables, chairs, &c.

They are all warmed by open fireplaces (coal is used for fuel), and are ventilated by windows.

There is an excellent dispensary, fitted with hot and cold water and the necessary fixtures, also a library containing a large selection of books, two well-fitted bath-rooms, and the necessary store-rooms, kitchens, mess-room, &c.

NAVAL HOSPITALS, UNITED STATES.

The naval hospitals of the United States are connected with the Navy Yards, and contain, as a rule, from one hundred to two hundred beds. The majority of them were built over twenty-five years ago, and present no noteworthy peculiarities of structure. The special fund for their maintenance is disbursed under the direction of the Surgeon-General of the Navy.

The Marine Hospital Service * of the United States, which is a bureau of the Treasury Department, charged with the care of sick seamen of the United States Commercial Marine, including steam-boatmen on inland waters, has several large hospitals in different ports. One of the largest of these, at Chelsea, near Boston, was built over thirty years ago on plans which are now obsolete. The most recent hospital of this bureau was built about five years ago at Baltimore. A description of this hospital will serve as a sample of the hospitals under the Marine Hospital Service.

It has a frontage of 500 ft. The ground contains nearly seven acres. The situation is elevated and commanding. It is intended to preserve the level of the ground about twenty feet higher than the avenue, to terrace and surround it at the base by a low wall, with ornate entrances and an iron railing.

The buildings are eight in number. Of these, six form the hospital proper, and are as follows: executive building, assistant surgeon's house, boiler, engine, laundry, and dining-room (mess) and kitchen building, and the east, centre, and west wards. The six administration buildings are two-storied, built of brick (except the kitchen, which, owing to the slope of the ground, in a portion of it, becomes three stories); the latter or ward buildings are one

* Fully described in the chapter on the United States of America, p. 710.

story only, of frame. The executive building is placed back from the building line, and forms the centre. The assistant surgeon's house on its left, the boiler, engine, laundry, and dining-room building on its right, form the extreme wings.

The centre ward is directly in the rear of the executive building, and the east and west wards in diagonal lines between this and the extreme wings. All the principal floors are on one level, and are connected by wide and continuous verandahs. These verandahs are extended entirely around the ward buildings, and also form an adornment to the fronts of the other mentioned buildings.

On or near the south-east angle of the premises, and parallel with the avenue, is located the surgeon's house, which is also two-storied, and of brick, and on the near or north angle of the premises are placed the stable and carriage-house, both of frame.

The stories of the two-story buildings are 11 ft. 6 in. and 10 ft. high, excepting the engine and laundry rooms, which are 22 ft. and 16 ft. respectively. All these buildings are finished with slate roof, the wards and verandahs with shingle.

The executive building has a front of 44 ft. and a depth of 44 ft., and contains, on first floor, reception-room, surgeon's office, dispensary and operating-room. The second floor contains five small rooms. The entrance is formed by a handsome portico, flanked by wide arcaded porches, and the centre is relieved by a tower.

The assistant surgeon's house is intended to accommodate two officers, with equal accommodation to each.

The boiler, engine-house, laundry, and dining-room forming the opposite wing, is irregular in outline.

The basement contains the wash-room and general store-rooms, the mess-kitchen and dining-room, with large pantries and refrigerator store-rooms; the second floor contains bedrooms, linen-rooms, mending-store, and property rooms. All rooms throughout are well lighted; spacious corridors and easy stairways are features in all, and all are provided with baths and other conveniences, special arrangements for which are also provided in the different ward buildings. Most careful attention has been given to their construction, ventilation, and drainage.

The three wards are all of similar design, dimensions, and construction. The entrance or administrative building of each is 36 ft. square, and contains two nurses' rooms, with requisite closets, and a dining-room for convalescents.

The wards proper are 30 ft. wide, 109 ft. long, and 16 ft. high

at the sides, but (following the slope of the roof) they are 27 ft. high in the centre. Each accommodates twenty patients. Each ward is furnished with two diagonal wings, which, while forming part of the building, are yet isolated from direct communication with it. One wing contains a water-closet, bath, and lavatories; the other is a smoking-room. The engine-house is surmounted by a brick tower 13 ft. square and about 60 ft. high, the upper story of which forms the water-supply or storage tank in addition to that used for drinking and cooking purposes.

The buildings are heated by steam or hot water from the boiler-room already mentioned.

MEDICAL DEPARTMENT, GERMAN ARMY.

The medical officers of the German Army are trained either at the universities or at the Friedrich-Wilhelm's Institute at Berlin. This institution is maintained for the purpose of assisting in their studies medical students who are intended for commissions in the "Sanitäts Corps." The course of study extends over four years, and those trained in this institution must remain in the army for eight years.

The medical officers exercise disciplinary power over the hospital assistants, but over soldiers they have no jurisdiction; all offences against discipline are punished by the commanding officer of the regiment to which the man belongs. In war time, however, the senior surgeon of the field hospital has the power of punishing a sick soldier under his treatment. The hospital assistants act as assistants to the surgeons in hospital, and supervise the nurses. In garrison or general hospitals female nurses are employed, whose services are much appreciated. They are generally Sisters of Charity or members of kindred institutions. They perform their duties under the direction of the surgeons and lady superior. Men are not enlisted as cooks, but in these hospitals civilian cooks, male and female, are employed. The hospital material is under the hospital inspector, who is a civilian; he has generally been selected from those who have served twelve years as corporal, and after that becomes a civil employé; he has not the status of a soldier.

In war the senior medical officer is the commander of the general hospital, which is placed under the supervision of certain military officers, who form the hospital commission and may visit the hospital at any time.

In the field there is attached to each division of infantry a bearer

company, consisting of 160 men, who are under the command of a commissariat officer, and having five or six surgeons attached to it. A few hospital assistants also belong to it, and act as attendants to the surgeons during operations. The senior medical officer exercises complete control over field hospitals, subject alone to the supervision of the Surgeon-General of the Army Corps. Only when a military hospital commission is formed have military officers the power of inspection. Female nurses are not employed in field hospitals; the nurses are men who have served three years' compulsory service. After they have drilled one year with their regiments they are sent for training to the hospital, where they serve a probationary period of six months. They must be of very good character, and volunteer for the work. In field hospitals food is supplied in the same way as to regiments, medical comforts being issued on requisition. In the field the General commanding is responsible for the movement of field hospitals, which are equipped to receive 200 patients.

By an ordinance of 10th January, 1885, an alteration was introduced into the law, so that the hospital accommodation provided should amount to only four per cent. of the garrison strength. Certain departures from this rule are, however, permitted upon adequate reasons being shown. When the garrison consists of only one or two battalions, a single block is sufficient; when the strength amounts to three battalions, furnishing about ninety sick, a block and pavilion are erected; and when the sick exceeds this number, an additional pavilion is added as required. When the strength does not exceed 200 men the sick are treated in a civil hospital.

ARMY MEDICAL SCHOOL IN BERLIN.

This institution is called the Friedrich-Wilhelm's Institute, and is for the purpose of maintaining and assisting in their studies medical students who are intended for commissions in the "Sanitäts Corps" (medical staff of the army and marine).

It had its origin in the establishment of a surgical "Pépinière" by an edict of Friedrich-Wilhelm II., dated 2nd August, 1795. This edict was obtained through the unceasing efforts of Johann Goercke, who was surgeon-general of the Prussian Army in the campaign of 1792-95, and who felt during these campaigns the need of properly educated physicians and surgeons, and the assistance such an institution would afford for bringing this about.

The "Pépinière" had an establishment at first of three staff surgeons, four upper surgeons, and fifty hospital assistants, who were eventually to become the surgeons of the army after passing through a prescribed course of study. In 1797 the institution was enlarged and obtained a separate building, while the hospital assistants attended the lectures in the "Collegium-Medico-Chirurgicum," and for practical work the "Charité," "Invalidenhaus," and military hospitals in Berlin.

The object of this was to obtain a uniform course of study for the medical officers of the army.

In 1809 the University of Berlin was founded, and the "Collegium-Medico-Chirurgicum" was done away with.

It was found, however, that the hospital assistants at the "Pépinière" had not the preliminary education required for the university course of study, and in consequence Goercke proposed the foundation of a "Medico-Chirurgical Military Academy." This academy was eventually established, and was opened in 1811. The majority of the professors of the old Collegium and a few of the professors of the university were appointed as teachers. A uniform curriculum was adopted, and the students had the same access as university students to the Anatomical Museum and Theatre, the Botanical Gardens, &c.; access was also granted to the "Charité" hospital for clinical study "under all circumstances and for all time." It was this academy which eventually in 1818 received its present name, and the close connection between the Institute and the principal civil hospital in Berlin is thus accounted for. In 1825 the Institute moved into the buildings it now occupies in Friedrichstrasse. In the same year new laws were passed regarding the examination for qualification to practise medicine and surgery, and the students of the Institute became subject to these. As a result, the difference existing between the education of military and civil medical students ceased, and eventually the teaching body of the Institute disappeared and the students attended the regular university curriculum.

Between 1874 and 1882 many important additions were made to the buildings of the Institute to meet the social and scientific requirements which arose out of the establishment of the Sanitäts-Offizier-Corps, in consequence of the increase in the army and navy and the lengthening of the medical curriculum to nine sessions.

The present director of the medical department of the War Office has also effected many improvements for the purpose of in-

creasing sociability amongst the medical students and the medical officers on the staff of the Institute.

The present staff of the Institute consists of twenty-seven staff surgeons, of whom two belong to the navy, and one to the Saxon and another to the Würtemberg army corps. Twelve of these staff surgeons are appointed to superintend the clinical work of the students in the "Charité," and two of them to act in turn as assistants of the clinical teachers. The remaining staff surgeons are employed as superintendents of the students' divisions, of the library, the laboratory, museum, household arrangements, &c.

The number of students is 264, of whom 207 have rooms in the Institute and fifty-seven lodgings in the town. The junior students are allowed one sitting-room and one bedroom between every four; the senior students, two bedrooms and a sitting-room for every three; and the students in their last year, a sitting-room and a bedroom between two. The rooms are furnished with the necessary articles of furniture.

The system of education adopted is as follows: During the first session (half-year) the students must serve in the ranks of one of the regiments of the Berlin garrison. After four sessions, during which they attend the regular courses at the university, they go up for the first examination in medicine, and at the end of the eighth session are expected to pass the second examination of the university. On passing this (that is to say, in their ninth session), the students are appointed "Unterärzte" of the army and navy, and for the first time wear the uniform of the medical staff. They are not commissioned officers, but have rank similar to warrant rank. On the 1st October and 15th of February of each year fifteen Unterärzte on an average are ordered to attend the "Charité" in the capacity of house surgeons and physicians. The remainder of the Unterärzte are obliged to pass the State examination for qualification to practise medicine, along with those who have already acted as house surgeons &c. at the "Charité." On passing this examination the Unterärzte receive commissions in the Sanitäts-Offizier-Corps.

The Institute contains the following collections &c. for the use of students:—

1. The Military Surgical Collection, which contains about 750 preparations of injuries to bones and drawings of wounds &c. caused by weapons during campaigns of the last and present century. A valuable addition was recently made to this collection

by the presentation to the museum of a part of the preparations of R. von Volkmann.

2. Collection of instruments and models, which was commenced in 1826, and contains an almost complete historical assortment of surgical instruments, litters, beds &c. (mostly models), and dressing material of the pre-antiseptic period. There are also models of the regulation medical and surgical equipment of the army, a very complete set of instruments, twenty-three of the newest microscopes required for bacteriology, and a micro-photographic apparatus.

3. A collection of bandages and dressings, with dummy figures on which to practise their application.

4. Pharmacological collection.

5. Anatomical and osteological collection, with a large number of bones to be lent to students learning anatomy.

6. Collection of the more important physiological apparatus, with thirty-eight simple microscopes for histological work.

7. Chemical collection, with the chief apparatus for analysis of water, air &c. and detection of poisons.

The staff-surgeons demonstrate the use of all these instruments and apparatus in special lectures. The cost of maintaining the Institute &c. for the entire medical education of the students who are to become the medical officers of the army and navy, amounted in 1889-90 to about £10,750. Of this sum, £900 were spent in pay and salaries, £600 in fixed "honoraria" for teachers, £2,550 in additional honoraria for teachers, £150 in scholarships, £250 in expenses connected with the medical curriculum (e.g. grants to the Pharmacological Institute and Botanical Garden), and £350 for preparations, models &c.

The students receive an allowance of 15s. to 30s. a month, and have free quarters and free education, but they must provide themselves with food and clothing at their own expense. A grant of £100 is made from the funds of the Institute about every second year for the travelling allowances of a staff surgeon sent on scientific missions.

Awards of microscopes and surgical-instrument cases are made on the two annual holidays of the Institute (2nd May and Founder's Day, 2nd August) to about 25 per cent. of the students.

Admission to the Institute is not by public competition, but by nomination and recommendation from the schools.

The condition of service for those who have received their

medical education through the Institute are, that for every year at the Institute they must serve two years in the army as surgeons; that is to say, they are bound down to a total service of at least ten years. At the end of this period medical officers are not necessarily required to leave the service, but they may proceed by promotion to the higher ranks, making their career in the Army Medical Service.

In addition to the appointments at the Friedrich-Wilhelm's Institute and "Charité" Hospital, medical officers of the army have many opportunities of maintaining their professional and scientific proficiency. In all large garrison towns, laboratories for hygienic and bacteriological work are being established in connection with the garrison hospitals, and for the smaller garrison towns a bacteriological cabinet has recently been introduced into the service. Many of the assistants at the Hygienic Institute, where Professor R. Koch has his laboratories, are army medical officers. All officers of the rank of *Stabsarzt* (staff surgeon) are ordered, from time to time, to attend a post-graduate course at the nearest university town of the army corps district in which they are serving. The course lasts for three or four weeks, and is called the "Operations-Cursus." As its name implies, it was originally a course of practical surgery. This course, according to recent orders, has been considerably extended, and includes operations on the living as well as on the dead body at the *clinique* of the professors of clinical surgery, and practical work in the laboratories of the professors of hygiene and pathology.

The duties of medical officers in the German Army are in many respects similar to those carried out in our own army. German medical officers have, however, no foreign service, and are connected during their service with the army corps of the district in which they have been brought up. Each regiment has attached to it, in medical charge, a senior medical officer (*Oberstabsarzt*), and each battalion a medical officer of the rank of *Stabsarzt*. In addition to these an assistant surgeon is attached to each battalion. The medical officers in charge of regiments and battalions take it in turn to superintend sections of the garrison hospitals, and do duty there for six months at a time.

The staff and families are under the charge of a senior medical officer, whose duties are very similar to those of the staff surgeon in Indian cantonments, or of medical officers in charge of staff and families at home.

As a rule medical officers of the army do not engage in private practice. They remain with the regiments to which they are attached for an indefinite period.

MILITARY HOSPITALS IN GERMANY.

The garrison hospitals at Berlin may be taken as the type of the German military hospitals. There are two such hospitals, one called "the First Garrison Hospital" (*Das erste Garisonlazareth*), situated in the centre of the town, and the other, "the Second Garrison Hospital," at Tempelhof, about three or four miles to the south of the city.

The former hospital was built in 1850-53 at a cost of £27,000. It is constructed on the corridor system, and consists of a central building and two wings (north and south). The number of beds allotted to this building is 457, each bed having from 13·92 to 37 cubic metres of air space. The hospital contains, however, equipment for 600 sick, the additional accommodation being obtained by the employment of movable hospital huts, a large hut for forty-three beds and Esse's wooden hut for thirty-five beds, being pitched in the grounds of the hospital, while six tents and huts on the Doecker system are kept in the hospital, to be pitched as required for the accommodation of seventy-nine sick.

The wards in the main building contain from two to ten beds each. They are warmed by stoves, and ventilated by windows and by apertures in the lower panel of each door. Four wards are reserved for officers and subordinate officials. The hospital also contains an operating-room, bacteriological laboratory, microscope room, dispensary, medical store-room and laboratory for the chief apothecary of the Third Army Corps and Guard Corps; five bath-rooms and a Turkish bath. The kitchen is fitted up with a steam cooking apparatus. Connected with the washhouse there is a disinfecting apparatus on Rielschel and Henneberg's system. A new store-room has been erected for the reserve of field dressing-material.

The water-supply is from two deep wells, sunk in the grounds of the hospital. They are ninety metres deep, and are the deepest wells in Berlin.

The cases are treated in four divisions: medical division, surgical division, outdoor patients, and a mixed division for ear, eye, syphilis (in a lock ward), and skin diseases.

A certain proportion of the regiments in garrison in Berlin, and

the establishments of the several military schools etc. are treated in this hospital.

The establishment of the hospital, with the exception of the medical officer in charge, who has a separate house, and some of the civilian sick attendants, is quartered in the main building.

The average number of sick treated during each year in the first garrison hospital was close on 4,000, taking the average for the last five years ; the average number of days each case was under treatment was twenty-three.

The *Second Garrison Hospital*, situated at Tempelhof, is comparatively new, having been built in 1875-7. Its buildings are partly on the corridor, partly on the pavilion system, and contain accommodation for 500 sick. The total cost of the hospital was £150,000. Excluding cost of ground and foundations, each bed is estimated to have cost £105 to £157.

The hospital contains altogether nine buildings for the accommodation of the patients. Four of these buildings are two-storied blocks, connected with one another and with the administrative building and kitchen and washhouse building by covered passages. These blocks are on the corridor system. Each has a long corridor facing the north, into which the doors of the wards open. The corridors are ventilated and lighted with numerous glass doors and windows. Two of the buildings are separate two-storied pavilions containing two large wards on each floor, opening on a staircase landing which is in the centre of the building. The pavilions face east and west. At the end of the north ward a smaller ward is partitioned off as a day-room for convalescents. A similar room, divided into two, forms special wards at the end of the large south ward.

The remaining buildings are called "isolated buildings," and are used for the treatment of infectious diseases. They are one-storied buildings, with an arrangement of wards similar to those in the pavilions. They also face east and west, and at the south end of each is a day-room opening out into a covered shed, under which patients may be placed when thought desirable.

The cubic space allowed for each bed is somewhat under 1,000 cubic feet (37 cubic metres). The distribution of beds is as follows. Each of the "blocks" has accommodation for sixty-five sick, in wards of six beds each, and in smaller wards of three and two beds each. Each pavilion accommodates seventy-four, in four large wards of sixteen beds each, two wards of three, and two of two beds each.

Each "isolated building" contains thirty-seven beds, in two wards of sixteen each, one of two, and one of three beds. In the "blocks" there are officers' wards, and prisoners' wards; and each block has a set of quarters for an assistant surgeon.

In each of the pavilions there are four rooms for hospital assistants and sick attendants, and in each isolated building there are two such rooms. On each floor there are water-closets, bath-rooms, and small tea kitchens.

The administrative block is a three-storied building containing a room for the examination of sick, a general room for medical officers, a dispensary, rooms for nursing sisters, &c. There is also connected with it a waiting-room into which runs a tramway line.

The kitchen and washhouse building contains a perfectly fitted-up kitchen with steam cooking apparatus, for 600 sick, on the Becker system.

Besides the washhouse, this building has a microscope room, store-room for provisions, cellars, drying-room, &c. It is surmounted by a clock tower containing the cisterns.

On one side of the hospital grounds there is a large three-storied building containing all the articles necessary for fitting up a hospital train. A building of similar size on the opposite side contains quarters for the hospital inspector, and twelve married civilian sick attendants. Each of these is allowed a bedroom, sitting-room, kitchen, and cellar.

Amongst the other out-buildings are an official residence for the medical officer in charge of the hospital, an ice-house, a mortuary, a guard-room, and sheds for the tramway cars that conduct the sick from the barracks in Berlin to the hospital. This method of sick transport is peculiar to Berlin, where the tramway system is so extensively developed. Rails are laid down from the nearest points of the Berlin tramway companies' lines to the various barracks at one end, and to the hospital at the other. Two tramway cars run daily between the barracks and hospital and back. The cars are specially fitted for the accommodation of sick, and can contain sixteen to twenty patients in a sitting posture, and four lying on litters constructed with spring legs, and capable of being strung up under the roof when not in use. The tramway company supplies the horses and drivers for the cars. One hospital assistant and one civilian sick attendant are on duty on the cars. The fresh sick are handed over to them at the waiting-room of the barracks, and on the return journey the men discharged from hospital. A third car

is also kept at the hospital for cases of accident, sudden illness, &c. In winter, when the cars cannot run on account of snow, a covered sleigh with accommodation for twenty sitting and two lying-down patients is used.

The water supply of the hospital is obtained from two wells, sunk 23 metres deep beneath the engine-house. The water is pumped daily into the cisterns, from which it is conducted to the various buildings in pipes. One hundred cubic metres of water are expended daily.

The steam engine used for pumping up the water supplies also the steam required for the cooking apparatus, washhouse, and disinfecting apparatus. The disinfecting apparatus is capable of containing an entire bed. Articles which have been disinfected are kept in a separate room from those to be disinfected, according to Schimmel's system, which is the one adopted in the hospital.

The bath-rooms are all fitted for hot, cold, and douche baths. The water-closets are on Grove's system, and can be heated in winter. There is also a Turkish bath in each "block."

The heating is by stoves placed in the centre of the wards. These stoves also act as ventilators. Air is conducted from outside by tubes running under the floor and entering the space between the stove and its mantel, which has an opening into the ward on its upper surface. The foul air passes up alongside the chimney of the stove and escapes by an aperture in the roof. In addition, all the doors of the wards have ventilating apertures in their lower panels. In the "isolated blocks" there is a second stove placed near the other stove, and arranged to considerably increase the circulation of air in the wards. Experiments to test the ventilating system of the hospital showed that air is renewed in the wards of the "blocks" at the rate of 81 cubic metres per hour for each bed, and in the wards of the pavilion and isolated blocks at the rate of over 100 cubic metres per hour.

The lighting of the hospital is by gas. Gas is also employed for boiling water &c. in the "tea" kitchens attached to the wards. The duties of the hospital are carried on by four senior medical officers, appointed for periods of six months or a year at a time from amongst the medical officers of regiments in garrison. Each of these officers has charge of one of the four divisions into which the hospital is divided. They are assisted by four resident assistant surgeons, who have a roster of duty amongst themselves.

Two military apothecaries also reside in the hospital. On an

average those in attendance on the sick comprise thirty-six hospital assistants, eleven military sick attendants, and five nursing sisters from the convent at Neisse. The other officials connected with the hospital are a "chief inspector" and three inspectors, thirteen civilian sick attendants, four servants, one engineer, two stokers, a cook and assistant cook (both females), three washerwomen, and three needlewomen.

The cook and assistant cook do the whole of the cooking, including the serving up of the diets, cleaning, and general kitchen work. They are assisted by one orderly. The head cook gets about £2 wages monthly, the assistant cook about £1 10s. The wards are cheerful and there is an abundant supply of light from the long windows. The beds are light iron cots with head rests and spring mattresses. A bed-head ticket, consisting of a small black board attached to each cot, contains the name of the regiment or battalion, number of company, patient's name, date of admission, disease, diet, treatment, and remarks written with white ink made of gum arabic, chalk, and water. The writing does not rub off, but can be readily washed off. The facts written on these boards are entered afterwards into a case book and other documents.

The number of sick treated each year on an average for the past six years was 3,637. The average mortality was 24, and the days under treatment 27; the average number of infectious cases was about 220; this includes the following which are regarded as "infectious" in Germany: scarlet fever, measles, roseola, diphtheria, enteric fever, dysentery, pneumonia, tubercle of lung and granular ophthalmia.

In addition to these regular hospitals, sick rooms are set apart in each of the barracks for the reception of trivial cases of illness. The number of beds provided is in proportion to the strength, one and a half per cent. being the number allowed. The regulation cubic space in these rooms is 20 cubic metres per bed. No hospital diets are provided.

THE NEW GARRISON HOSPITAL AT DRESDEN.

The military hospital at Dresden is very favourably situated in a large park near the Priesnitz Rivulet. The park is 600 acres in extent.

The hospital is calculated to hold 424 beds, and the cost per bed

is estimated at about £100 per annum. This sum includes expenses connected with the garden, &c. The main buildings, which are all separate, form a large square.

The administrative building contains the main entrance, the central dispensaries, offices for the administration, quarters for the medical officers in charge, commissariat officer, and various hospital officials, besides board-room, library, and reading-room for medical officers.

Courses of military surgical instruction are given here in the lecture rooms, hygienic laboratories, &c. On the right is a long hospital building for 252 sick, with a corridor on the garden side. It is only intended for slight cases. In the basement are boilers for the central heating apparatus. The central part contains rooms for orderly medical officer, an admission room, reading room, &c.

There are two pavilions for severe cases, containing 136 beds. The boiler and heating apparatus are in the basement. Each wing contains on each of the two floors one large ward with opposite windows. There are ten beds in each ward. At each end are sinks, baths, &c. There are also "isolating pavilions" for special cases, at a distance of 75 metres from the other buildings. These pavilions contain 36 beds each and are one-storied, on an elevated ground floor. They are divided into two parts by a solid brick wall.

Each wing has an arrangement for closet, bath, &c. There are also a room for attendants, and three small wards containing three and five beds. Each ward is heated by a stove.

A mortuary, which is used for pathological purposes and also operative courses, is provided.

The ventilation in all the pavilions is arranged on the "Keeling system." An ascending shaft, carrying off the impure air, contains an iron stove pipe, which is specially heated whenever the wind-current does not cause it to act in the proper direction. The building is lighted by gas. The sewerage arrangements are on the Siïvern system.

There is no mention in any of the regulations of officers attending classes *in* hospitals. In Germany there is a system of ordering officers, from time to time, to the headquarter stations of army corps, where there are universities which they have to attend. The training in field-service duties is carried out annually, in connection with the training of men as units of bearer companies, and this training is quite distinct from the hospital system.

Officers of the rank of staff surgeon must attend an "operation course," and are ordered for this purpose to headquarter stations. This course includes operative surgery in the hospital, as well as work in the hygienic and bacteriological laboratories, and is connected with the usual teaching work of the university.

HOSPITAL HUTS, &C.

Hospital huts are used in the German army as shelter for wounded, or where hospital accommodation for temporary purposes is required.

Those in general use are as follows :—

1. For sick :—

- (a) A hospital hut with canvas lining (Leinwand), completely fitted for summer use. It contains sixteen bedsteads with bedding &c., tables chairs, &c., according to the pattern used in military hospitals.
- (b) A similar hut, arranged for winter use, with a Möhrlin stove. It contains sixteen beds of different patterns, among them being a wooden camp bed, two folding iron bedsteads, one with a wire mattress, the other with hoop-iron bottom, a bedstead of Dr. Grothof's pattern, and sixteen folding bed-tables.
- (c) A Doecker hut with felt lining, containing several kinds of bedsteads.

2. For hospital establishment :—

- (a) A Doecker hut containing rooms for two surgeons ; subordinate establishment and dispensary also provided.
- (b) A canvas hut completely fitted with kitchen and washing utensils for sixty patients, and a bath-room.

NAVAL HOSPITALS, GERMANY.

There are naval hospitals for the Imperial German Navy at Fredrichsort and Kiel, in the county of Schleswig, and at Wilhelms-haven in the county of Aurich, which are under the control of the Imperial Fiscus. There is also in the empire of Japan a naval hospital at Yokohama, in connection with the German marine. There are also hospitals on shipboard which are similar to those in the Royal Navy. They accommodate two per cent. of the ship's

crew. They are well lighted by side windows, portholes, and skylights. The roof and walls are painted with white paint, and the floors prepared with oil.

On large vessels, where practicable, a bath-room is fitted up near the hospital, together with water-closets, &c. Ventilation is provided by shafts, which admit fresh air and carry off foul air. The beds are fixed and have copper-wire mattresses.

Temporary hospitals may be constructed of sail cloth when the fixed accommodation becomes insufficient or the sick require cooler or more airy accommodation, when infectious cases occur, requiring separate berths, or when the temperature in the fixed hospital exceeds 67° Fahr.

On ships of war, which have no hospital, the sick are accommodated between decks—the space being protected by sail-cloth.

As a rule, vessels with crews of more than one hundred hands have a dispensary; if less than one hundred hands they have a medicine and bandage chest.

Lighting is by candles in lanterns. Naked lights may only be used in investigations and operations. Medical officers for the Imperial Navy receive the same training as the officers of the Army Medical Department.

MEDICAL SERVICE OF THE ARMY OF FRANCE.

Under a decree of the President of the French Republic, dated the 11th of April, 1889, complete autonomy is granted to the medical service of the army. This includes the financial control of all expenses connected with the army medical service, the providing of medical stores and supplies, as well as the *personnel* of the "officiers d'administration" of the hospital and the hospital orderlies. The Minister for War, in introducing this Bill to the Chamber of Deputies, stated that "he alone who has the responsibility of controlling the expenses superintends carefully the employment of the money, and is naturally anxious only to charge to the State the expenses necessary for the proper work of the service."

By the law of the 14th of December 1888, the following is the mode of recruiting the regular medical service of the French army:—

Medical students between seventeen and twenty-two years of age are accepted, provided they are physically fit and possess a diploma of bachelor of arts, or bachelor of science, and that they succeed in passing an examination at a public competition held annually.

They then receive letters of nomination to the school of military medical service at Lyons, where they remain for five years or the period necessary for obtaining the diploma of doctor in medicine. They must enter into an engagement to serve at least six years in the army. Civilians who have obtained the degree of doctor in medicine are also allowed to compete for commissions, if they are within the age limits, and if successful, they are admitted to the military medical school at the Val-de-Grâce, along with those who have qualified at the military school at Lyons.

The school of the Val-de-Grâce is intended for the special application of the general professional knowledge which has been gained, and is therefore analogous to the Army Medical School at Netley.

MILITARY HOSPITALS.

Military hospitals in France are divided into five classes as follows :—

Class 1.—600 and more beds.

„ *2.*—500 to 599 „

„ *3.*—300 to 399 „

„ *4.*—200 to 299 „

„ *5.*—Less than 200 „

Regimental hospitals are established with each battalion. They are intended for slight cases, and are similar to the “sick rooms” in the German and Austrian barracks, but they differ from them in being situated in a separate building.

Each regimental hospital consists of—(1) consulting room and surgery; (2) room for the corporal in charge; (3) bath-room with two baths, one set apart for itch patients; (4) room for wounded and venereal patients; (5) room for itch patients; (6) room for convalescents; (7) two water-closets, one for itch patients. These hospitals are in charge of regimental medical officers, assisted by men belonging to the various corps, who are responsible for the proper dieting and treatment of the patients and for the sanitary condition of the barracks. The regimental hospitals are calculated on a proportion of $2\frac{1}{2}$ per cent. sick of strength for infantry and 3 per cent. for cavalry.

Station Hospitals are established in various towns. In France forty such hospitals exist; there are twelve in Tunis, four

in Tonkin, and sixty-three in Algiers. They are called "Hôpitaux Militaires."

During late years many of the military hospitals have been suppressed, when, in the towns where they existed, the civil hospitals were in a position to undertake the duties of the military medical service. These civil hospitals are divided into two categories:—

1. Mixed, or militarised, hospitals.
2. Civil hospitals, properly so called.

In the first category are classed civil hospitals having wards specially apportioned to military patients. Whenever the garrison numbers 300 men, the military patients are to be treated in special wards, and are to be, as far as possible, under military regulations.

In the second category are classed the hospitals of towns whose garrison is below 300 men. In this case military patients are placed in the ordinary wards, if it be impossible to have for them special wards under military regulations.

When a garrison numbers 1,000 men the treatment of sick is confined to military surgeons; where the garrison is below that number military patients are treated by military surgeons whenever the medical *personnel* of the garrison will permit it. In case of insufficiency the duty in the military wards is taken by civil surgeons.

In civil hospitals, properly so called, patients belonging to the army are treated by civil surgeons. When military patients are treated by civil surgeons, the surgeon of the garrison has the right to visit them, but he does not have the right to interfere with the treatment of the patients or give any orders regarding the duties of the hospital. The State pays to civil hospitals all expenditure incurred on its behalf.

The entire management of military hospitals is under the army medical department. The expenses are taken from the general vote. No detail is given. Nursing sisters are employed in the chief military hospitals. The number is fixed by Government, and when any increase in the establishment is required it is sanctioned by the head of the medical service. These sisters are under the orders of the medical officers. Orderlies from the Medical Staff Corps, in the proportion of one hospital orderly to every eight sick men, are provided from the *dépôt* of the corps; they are under the command of a medical officer, who is vested with the powers of an officer commanding a troop or company. Their duties consist in

providing guards for the hospital, distribution of medicine and food, cooking, ward duties, &c. They alternate each month the different parts of their work.

The *Military Hospital at Bourges* may be taken as a type of the military hospitals in France.

The building is situated on an elevated site, and is bounded on three sides by roads. The extent of the site is a little over twelve acres. The soil is limestone, very permeable and with a good natural drainage.

The hospital is built on the pavilion plan. There are twelve blocks intended for the reception of sick, with a central block in which are rooms for receiving patients, dispensary, surgery, library, operation ward, kitchen, and bath-rooms, all situated on the ground floor. The upper floor is occupied by some of the officials, and is also used as store-rooms. In the basement are stores, larders, &c.

Each pavilion contains a large ward for twenty-eight patients and an isolation ward for one patient. The whole building is intended to receive 332 patients.

The pavilions are connected with the administrative block by corridors, which are closed in, and in which the patients can take exercise in wet weather. They are 13 feet wide and about 13 feet high. The flooring is of cement and the walls are plastered.

The axes of the pavilions run from north-west to south-east; they are thus fully exposed to sunlight, which can gain free access to the wards. Each ward is 96 feet 5 inches by 24 feet 7 inches; the average height is 20 feet; the total superficial space is 2,370 feet, or about 89 feet per bed; and the cubic space 47,678 feet, or 1,703 cubic feet per bed. The ceilings are shaped like a Gothic arch, and the extreme height is about 25 feet.

Windows are placed between each pair of beds. They are somewhat low, but are supplemented by dormer windows situated halfway up the roof.

The water is from large storage tanks which are filled from the public water supply of the town. The drainage is said to be excellent.

The wards are heated by two stoves, inclosed by casings. Fresh air is brought in by channels passing beneath the floor from outside, and is heated in the chamber surrounding the stoves. It is also moistened if necessary, and is distributed by apertures in the external casing to the wards. The flues are taken through

the outlet shafts and assist in drawing off the vitiated air from the wards. In each ward there is also a double grate with open fires. The system of heating appears to answer fairly well, except in very cold weather.

There are also sixteen ventilators on either side of the ridge of the roof, which can be opened and closed as required. In addition to these, there are the upper and lower windows available for ventilation purposes.

The wards are lighted by lanterns fixed against the side walls. Special pipes carry away the products of combustion, and to a slight extent also assist in ventilation. The water-closets are detached from the wards; they are in a separate building and connected by a corridor open on both sides. The approach is not sufficiently protected, especially for delicate patients in bad weather. The baths and lavatories are to the right of the passage leading from the ward to the grounds and the day-room to the left. On the right of the entrance passage to the ward, is a ward attendants' room, 14 feet 9 inches long, and 9 feet 6 inches wide, and opposite to it, on the left, is a small ward of the same size for one patient.

This hospital was designed by M. Tollet, on his system which is known as *Système Tollet*, which mainly consists in constructing the roof in the form of an arch.

Except at the military school at the Val-de-Grâce, no classes or lectures appear to be given in any of the military hospitals. Medical officers on return from foreign service, as well as those at home, are permitted to attend a course of study at the military medical school at the Val-de-Grâce, in order to make themselves acquainted with recent advances in medical science.

The biological examination of water, air, soil, &c., and the practical hygienic work as applied to armies in the field, are studied by the older surgeons.

THE AUSTRIAN MEDICAL SERVICE.

The medical officers of the Austrian Army belong to one corps, the *Militärärztliches Korps*. Some are attached to regiments some to hospitals, and others perform staff duties. They possess no military command whatever over the men of the hospital corps or over sick soldiers in hospital, except in the case of railway hospital trains or hospital ships when no other commissioned

officer is present. The hospital corps has its own officers, or a regimental officer is attached to maintain discipline.

The men of the hospital corps receive a distinct training, either in hospitals or attached to regiments or corps. In hospitals they act as clerks, orderlies, nurses, cooks, &c., and they are bound to comply with the directions they receive from the medical officers. There is on an average one attendant to every six patients, and one pioneer to every sixteen. There are also apothecaries, who likewise are under the direction of the medical officers, but, as regards discipline, under the military authorities. The hospital service in the Austrian Army comprises three branches, viz. : the corps of medical officers, the apothecaries branch, and the hospital corps.

The nursing is done by the hospital corps. Orderlies are never detailed from regiments, except in regimental hospitals. There is no mention made of female nurses in the regulations.

The apothecaries are to provide for the use of troops and military hospitals the necessary medicines, drugs, stores and appliances, &c., and to make up and dispense medicines. As regards administrative duties they are under the *Intendanz*, but are directed by the principal medical officers as regards apothecaries' duties. For discipline they are under the officer commanding the station.

AUSTRIAN MILITARY HOSPITALS.

Military hospitals in Austria are classed as follows :—

A. *Permanent Hospitals*, including :—

(a.) Garrison hospitals, which, however, only exist at large stations, and are arranged for the reception of patients on the general hospital system rather than on the garrison hospital system of Germany.

(b.) Regimental hospitals, opened at stations where there is no garrison hospital. They are so named because the hospital staff is taken from the regimental surgeons of the corps in garrison, and is usually changed every three months.

(c.) Casual hospitals (*Marodenhäuser*), exactly similar to the German "sick rooms in barracks," and only intended for convalescent and trivial cases.

(d.) Hospitals at various thermal watering-places.

(e.) Fortress hospitals.

B. *Field hospitals*, including :—

- (a.) Divisional ambulances.
- (b.) Field hospitals.
- (c.) Field casual hospitals.
- (d.) Reserve hospitals in the theatre of operations.
- (e.) Halting stations for the sick.
- (f.) Hospital railway trains.
- (g.) Ship hospitals.
- (h.) Sick convoys.

C. *Reserve hospitals*, in war, including :—

- (a.) Permanent military hospitals.
- (b.) Association reserve hospitals.

In Austria no particular plan of construction is adopted, this point depending on the locality and on the size of the building. Certain rules are given for guidance in the selection of site, &c.

The regulations order that the largest ward shall not contain more than twenty beds ; that the height of the wards shall be at least 3·80 metres, and not more than 5 metres ; that the cubic space per bed shall be 40 cubic metres for garrison and regimental hospitals, and 50 cubic metres for contagious wards ; and that these latter contain one to twelve beds. The windows are required to be equal at least to one-eighth and not more than one-fifth of the superficial area of the floor. When sufficient water is obtainable the drainage is to be carried out on the "Schweem system." To insure ventilation the amount of air to be changed each hour must equal one and a half times the volume of air in the ward, and the temperature of the wards must be kept at $22\frac{1}{2}^{\circ}$ Cent. No details as to how these are to be carried out are given.

ITALIAN MEDICAL SERVICE.

The corps of medical officers of the Italian army is known as the *Corpo Sanitario Militare*. Medical officers were first given the rank of officers by the law of the 30th September, 1873. Medical officers are either employed in hospitals attached to districts or garrisons, or attached to corps or regiments. There are twenty companies of the hospital corps, each company being attached to a district where the men are trained. The headquarters of each company is stationed in the general hospital of the medical direction to which it belongs, where the greater part of the non-commissioned officers and men belonging to it are employed. Small detach-

ments are provided from it for employment in branch hospitals and garrison infirmaries, and occasionally in regimental infirmaries. There are no regimental bearers shown on the peace or war establishment. The hospital corps is entirely under the command of the medical officers, who have also command over military patients in branch and general hospitals, but not in garrison or regimental infirmaries.

MILITARY HOSPITALS, ITALIAN ARMY.

There are twenty territorial hospital directions, corresponding to the twenty territorial divisions of the army, with twenty general hospitals (*ospedali principali*), nine branch hospitals (*succursali*), and sixteen garrison infirmaries (*infermerie di presidio*). There are also regimental infirmaries (*infermerie dei corpi*), sea-bathing stations (*bagni marini*), and convalescent depôts (*depositi di convalescenti*).

Each hospital direction is under a medical officer of field rank, who is director. His staff consists of medical officers, apothecaries, paymasters, and clerks.

The general hospital is at the headquarters of the territorial division. The branch hospitals and garrison infirmaries are branches of this, and are for other garrisons or stations in the command.

The director has entire charge of the medical service in the territorial division, and superintends the administrative and disciplinary duties in the military hospitals, and he has immediate personal charge of the general hospital. To carry out this he is given all the authority of a commanding officer, but he is subordinate and responsible to the general officer commanding the territorial division. On financial matters he corresponds directly with the War Minister.

Military hospitals receive and treat the sick (officers and men) of the active army, the navy, and armed men in the public service not belonging to either the army or navy, and also civilians who meet with serious accidents near a military hospital and whose removal to a civil hospital would be accompanied by danger. Men belonging to a contingent of recruits may also be sent to a military hospital to be kept under observation.

The general officer commanding the division exercises his authority over and superintends the military instruction of the

hospital corps and medical officers in his command, and delegates a senior officer to inspect the hospital.

The director of a territorial division is appointed by the Minister for War.

Medical officers belonging to regiments do duty at the military hospitals of the places at which their regiments are quartered.

When the *personnel* of a company of the hospital corps is insufficient to meet the wants of the direction, the director is authorised to employ civilians for fatigue purposes, and under certain contingencies the general officer commanding the division may detail the necessary number of men required to assist the hospital corps from the infantry, taking them from the troops under his command. These men must not be kept at such duties for more than three months at most: if their services cannot then be dispensed with, they must be changed.

In military hospitals the sick are segregated, according to disease, in classes generally as follows: (1) Medical; (2) Surgical; (3) Ophthalmic; (4) Venereal.

Sick officers are kept apart in separate rooms, and non-commissioned officers are kept, if possible, separate from the men. Convalescents are also separated from the sick when possible. Prisoners, as well as men awaiting trial, are kept in rooms properly guarded.

Store duties are comprised under:—

(a.) A store for clothing &c. of the patients.

(b.) Hospital stores.

(c.) Shirts and linen.

(d.) Surgical instruments and library.

(e.) Apothecaries' stores.

(f.) Field equipment.

Each of these stores is in charge of a person who is responsible to the committee of administration, and is assisted by men from the hospital corps supplied by the director.

(a.) In this store is placed the clothing, money &c. of the patient; an inventory is taken, and he receives a copy. Hospital clothing is issued.

(b.) This is a store for hospital furniture, &c.

(d.) The charge of this store is combined with the library.

(e.) These are in charge of the chief apothecary, who has to furnish the *personnel* in case of mobilisation.

(f.) The medical stores for the field. They are in charge of

one of the paymasters, and the committee of administration is responsible for the supply.

BRANCH HOSPITALS AND INFIRMARIES, ITALY.

The branch hospitals (*ospedali succursali*) are in charge of the senior medical officer belonging to them, who is invested with the same authority as the director in the case of a general hospital, and is responsible to the director for the proper management of the hospital. The duties are carried out in the same way as in general hospitals. Each branch hospital is inspected by the director once in every six months, unless when this necessitates a sea voyage when it is done by order of the general officer commanding the division.

GARRISON OR STATION INFIRMARIES, ITALY.

These are formed when it is deemed inadvisable to establish branch hospitals, and when military patients cannot be treated in civil hospitals. The sanction of the Minister for War is required for their establishment. Patients from all corps and regiments are treated in them, but when the case is likely to last for some time the patient should be sent to the nearest military hospital, unless the journey would be detrimental to his health. When the case appears to assume a chronic character, the patient should be transferred, if possible, to a military hospital.

An infirmary is in charge of a medical officer belonging either to a regiment in the place or to the division. He is appointed by the general officer of the division on the recommendation of the director. Regimental medical officers do duty at it according to the rules that apply to general or branch hospitals. Patients are considered as being in a military hospital and are treated as such. The officer commanding the regiment or district has, however, administrative and disciplinary command in it, while the medical director has charge of the scientific and medical functions.

REGIMENTAL INFIRMARIES, ITALY.

These are for the reception and treatment of non-commissioned officers and men belonging or attached to a regiment for slight ailments requiring treatment but a short time and of a simple character. They are established in barracks occupied by a regiment.

The senior medical officer of the regiment is in charge, but in administrative and disciplinary matters the hospital is under the officer commanding the regiment. The medical duties are performed by the medical officer belonging or attached to the regiment, who has charge of the hospital and medical stores belonging to the regiment.

Thermal establishments are for receiving and treating officers and men of the army for certain specific complaints. They are established by order of the War Minister, and are in charge of a medical officer who is responsible for the discipline of the non-commissioned officers and men.

Sea-bathing establishments are also for certain specific complaints. Soldiers ordered to them are attached to the corps or regiment on the spot.

Convalescent dépôts are for receiving patients who have recovered from long and severe illnesses in military hospitals. They are established by order of the War Minister when, from a high rate of sickness or some such cause, the military hospitals become overcrowded and the proper segregation of the sick becomes impossible. They form branches of the general hospital, and a medical officer, with the necessary number of men of the hospital corps, is detached from the latter to take charge. Convalescents wear their regimental uniform, which they draw from the clothing store on quitting the hospital they are discharged from. The diet is the same as in military hospitals, except that ammunition bread is issued in place of white bread.

FIELD HOSPITALS, ITALY.

(Ospedali di Campo.)

There would be nine field hospitals to each army corps in the field. A field hospital comprises a staff of medical officers, &c., a detachment of the hospital corps, and a section of the auxiliary train, numbering six medical officers, one apothecary, one chaplain, and forty-eight non-commissioned officers and men.

A field hospital is fitted to make up 200 beds. All the hospital stores &c. are carried in ten two-horse two-wheeled hired carts. There is also a four-wheeled omnibus for officers or sick. The field hospitals of an army (three army corps) are under the superintendence of the sanitary direction belonging to the army.

To each army corps are three sections of the hospital corps—one to each field hospital.

Executive Duties connected with the Sick.

The duties in military hospitals are divided into two classes :—

- A. Sick duties (*servizio degli ammalati*).
- B. Company duties (*servizio di compagnia*).

A. *Sick duties* are divided into—

a. Permanent duties :—

- (1) A senior medical officer or a surgeon-captain as head of a division.
- (2) One or more “subaltern” medical officers as assistants for each division.
- (3) Corporal of division.
- (4) One or more hospital assistants for each division.
- (5) At least four hospital orderlies for each division. It is usual to appoint a private of the hospital corps for every ten or fifteen sick, according to the nature of the diseases, conditions of the locality, and requirements of the duties in each division.
- (6) Military apothecaries for dispensing medicines, &c., aided by one or two subordinates of the hospital corps who show special capacity for pharmacy, and by one or two soldiers detailed for duty in the dispensary.
- (7) A chaplain.
- (8) A corporal and the necessary number of soldiers for cooking for the sick.

b. On weekly roster of duty :—

- (1) A surgeon-captain as inspecting medical officer, whose duty is to go round at fixed and at unexpected times, day and night, in order to see that the various duties &c. are being carried out.
- (2) An apothecary.
- (3) An inspecting sergeant or corporal.
- (4) A soldier as attendant at the gate

c. Daily roster of duty :—

- (1) A medical officer on duty for continual supervision of sick nursing, &c.

- (2) Corporal on duty.
- (3) Hospital orderlies on duty (one in each division).
- (4) Special soldier orderlies for attendance at the bedside of more serious cases, for watching sick detained, and for prisoners' wards.
- (5) Soldiers on fatigue duties for cleaning, &c.

B. Company duties have reference to the interior economy of the company of the hospital corps belonging to the hospital, and are divided into—

- (1) Weekly duties.
- (2) Daily duties.

These various duties are distributed and regulated by the director of the hospital.

In addition to the regular establishments belonging to the army, in attendance on the sick are nuns belonging to the various religious Orders whose mission is to attend on the sick, who are permitted to assist in the nursing duties as well as in the duties connected with kitchens, dispensary, and laundry. Their number is limited and can be increased or diminished according to requirements. They are strictly under the officer of the particular duties to which they are assigned and are not permitted to have communication with any other. Any want of courtesy to them and their "pious office" is severely punished.

Distribution of beds &c. in Military Hospitals.

Each division contains from forty to eighty beds. In the medical division the number is not to exceed sixty. The beds must not be less than eighty centimetres distant from one another, and the head rails must, if possible, be a little distance from the walls. The beds must be distributed in each ward so that there are at least thirty cubic metres of air space to each bed, and four square metres superficial area. The cubic space of each ward is to be noted on one of the walls.

In cold weather the rooms are to be heated to 12° or 15° Cent., and all wards are to be provided with a thermometer.

The whole interior of every hospital is to be lime-washed once annually, and partial lime-washing is done as required. Latrines are lime-washed at least once in every three months.

ITALIAN NAVAL HOSPITALS.

The Italian coast-line, as far as the naval service is concerned, is divided into three departments. The chief hospital of the first or N.W. department is at Spezia (265 beds), with which is connected a branch hospital at Porto Venere (150 beds) chiefly for venereal cases, and an infirmary at Peguzzana (75 beds) for epidemic cases.

The descriptive notes of these hospitals are not very detailed. The Spezia hospital consists of a tall main building, situated at the back of the Royal Arsenal. It is surrounded by a wall, and from its façades, which run parallel to Garibaldi Street, project four wings with sufficient space between each to insure thorough ventilation and abundance of light. The hospital was constructed by the military engineers, and its cost is borne partly by the State and partly by payments received. The hospital is governed by a director. It receives for treatment all sailors from the navy, who may be sent to it free of charge. Soldiers pay a fixed charge which is defrayed by the War Department; those who apply for admission otherwise pay in proportion to rank, which goes towards the maintenance of the hospital. The payment made for a private soldier is about 1·25 lire daily, whilst admirals and generals pay 8 lire per diem. The average number of beds occupied throughout the year is 180. With the income derived from payments made by patients, all expenditure for food, medicines, printing, fuel, candles, washing, and all minor expenses have to be met. All expenses incurred by purchases of furniture, repairs of fixtures, bed linen, patients' clothes, books, surgical instruments &c. are paid by the State.

Naval Hospital at Venice.

The naval hospital at Venice is the central hospital for one of the three naval departments. It is situated outside the town and facing the sea, without any buildings intervening. The building is so placed that the wards for sick are freely exposed to the sea air and are well lighted.

The building itself is a very old one. It is believed to have been constructed originally for a convent. Afterwards, under the Austrian government, it was used as a naval school for the instruction of naval cadets, and remained as such until the revolution in 1848. Later on, in consequence of the Austrians reoccupying the place, it

was turned into a barrack and remained as such until 1866, at which date the province of Venetia became part of the Italian kingdom.

In 1867, a naval hospital was first established, but only for a very short period, and in 1870 the building was in use as a school for naval officers. It is now again used as a hospital.

In consequence of the various uses made of the building it has had to undergo many changes and alterations, so that it presents no uniform plan of a hospital. The hospital has a ground floor and first and second floors, but the second floor is incomplete. The ground and first floors only are occupied.

The number of beds is 200, but every endeavour is made to have this number increased.

As in military hospitals, the sick are segregated according to disease in classes as follows :—

Medicine	...	...	...	60 beds (2 empty)
Surgery	...	...	...	55 " (5 ")
Syphilitic cases	...	...	...	50 " (3 ")
Special cases	...	...	...	35 " (11 ")

The height of the wards varies from three to five metres. The width is from four to six metres.

The average daily number of beds occupied is ninety-five.

The sick-attendants are not located in a special building, and do not live in the hospital ; they occupy the basement of an adjoining establishment. Married sick-attendants may, with the director's permission, live outside the establishment.

The staff of the hospital consists of—

One director, of the rank of colonel.

One vice-director, of the rank of lieutenant-colonel.

A number of medical officers of senior and junior ranks, according to requirements, one of whom acts as secretary to the director.

One chief commissariat officer.

One paymaster.

Two apothecaries, one chaplain, six Sisters of Charity, and sixty sick-attendants, including twelve sergeants, eight corporals, and forty men.

The administration of the hospital is carried out by a board of four members :—

The chief director	...	...	...	President.
The vice-director	...	...	...	} Members.
A magistrate or judge	...	...	...
A director of accounts and secretary	...	...	...

The hospital is intended for the reception and treatment of military persons and those belonging to the navy, as well as recruits sent by the captain of the port; persons belonging to other armed forces in the State are taken in only if they form part of the crew of a ship of war. Only in exceptional cases are civilians admitted, as when an accident occurs in the neighbourhood of the hospital and the case cannot without risk be transferred to a civil hospital. Officers and others on the effective strength who desire admission on payment must write to the administration for permission to be admitted. The charge per day varies with the rank of the individual, and is as follows :—

For an admiral (flagship officer)	...	8	lire.
„ officer of high rank	...	5	„
„ „ lower rank	...	3'50	„
„ subaltern	...	2'50	„

For sergeants, corporals &c. the terms are from 1'20 to 1'50 lira daily. If civilians are admitted they are charged 1'75 lira.

The sick-attendants are of seven different grades. They are carefully selected before employment, and instructed in their duties. At stated times they are examined before a board of officers, who recommend them for promotion. Their monthly pay ranges from 44'90 lire to 113 lire. After six years' service an increase in the form of table allowance is granted, ranging from 9'15 to 30 lire. After twelve years' service a gratuity varying from 240 to 2,000 lire is given. Pensions are awarded after fifteen years' service. Before this period one-twentieth of the pension is deducted for every year short of fifteen.

HOSPITAL SERVICE OF THE RUSSIAN ARMY.

The Army Medical Department in Russia is the highest military authority on medical and sanitary matters, and has control over the whole medical *personnel*. The department is under the Surgeon-Inspector-General and his assistant, and consists of four branches, viz. :—

Personnel.

Military Hygiene.

Accounts of Interior Economy.

Control of Dispensaries.

The Imperial Military Academy of Medicine is also under the superintendence of this department.

Medical officers are appointed both to hospitals and corps.

For a hospital with 800 beds	there are 15 surgeons.
" " " 150 "	" 4 "
" regiment of infantry (4 battalions)	" 5 "
" " cavalry (4 squadrons)	" 2 "
" sapper battalion (5 companies)	" 2 "

The senior surgeon has authority over all the medical subordinates employed in the hospital, his disciplinary powers being equal to those of a battalion commander. Medical officers have no command over soldiers in hospital.

There is no special hospital corps. The medical subordinates are not drilled as soldiers. The other subordinates, consisting of commissaries, storekeepers, clerks, hospital orderlies, hospital attendants (cooks, bakers, &c.), are under the inspector of the hospital, who is responsible for their discipline. All important matters by which both branches are affected are submitted to a hospital committee, of which the senior surgeon is president, and a surgeon and a commissary are members.

Station or permanent military hospitals are of four classes, and are distributed amongst the various military districts. They are as follows:—

Hospitals of the 4th Class.—These contain 40 beds for officers and at least 800 for non-commissioned ranks and men, with a reserve of 20 beds for officers and at least 300 for non-commissioned ranks. For this class of hospital 72 hospital orderlies and 132 hospital attendants (cooks, bakers, dispensary men, &c.) are allowed.

Hospitals of the 3rd Class contain 30 beds for officers and 500 for non-commissioned ranks, with a reserve of 15 for officers and 150 for other ranks.

Hospitals of the 2nd Class contain 10 beds for officers and 300 for non-commissioned ranks, with a reserve of 5 for the former and at least 100 for the latter.

Hospitals of the 1st Class contain 5 beds for officers and 150 for non-commissioned ranks, with a reserve of 2 for the former and 50 for the latter. For this class twenty nurses and orderlies and fifty hospital attendants are allowed. The numbers for the third and second class are in proportion. When a smaller hospital establishment is required, a half-hospital can be formed with an independent administration.

In some of the station hospitals there are special wards appropriated, with female attendants, for the wives and families of soldiers.

The commandant is responsible for the maintenance of order and discipline in the hospital.

The surgeon-major superintends everything relating to the care of the sick—surgeons, apothecaries, and dressers being under his immediate orders. A committee composed of all the surgeons and officials belonging to the hospital, with the senior medical officer as president, attends to financial matters, audits accounts, and can make purchases to the amount of 100 roubles (£15).

The hospitals are divided into wards according to the nature of the maladies of the inmates. The senior surgeon of each ward is personally responsible for the proper treatment and care of the sick under his charge.

During the summer months the sick are placed in tents or huts to allow of the hospital being thoroughly cleaned and ventilated.

The nursing is carried out by hired nurses or by men who are told off by the officer in command of the local troops. Latterly nursing sisters (Sisters of Mercy) have been employed in the larger hospitals; they are paid out of the general funds of the hospitals. The numbers on the hospital establishment in January 1888 were as follows :—

On regular strength	...	...	...	142
Extra	...	...	...	47

Soldiers are also admitted for treatment to civil hospitals, and may be treated as out-patients.

Regimental Hospitals form part of the establishment of the various corps comprising the army, and follow them in the field. During the march they receive the sick and render them first assistance and hand them over to the divisional hospital. On a war footing a regimental hospital contains sixty beds. This is increased to eighty-four beds when ordered on field service.

Field Hospitals are only formed on mobilisation. Each hospital is organised to receive 30 officers and 600 men as patients, and can, if necessary, be divided into three sections. Both *matériel* and hospital stores are during peace kept at the intendance dépôt.

Mobile Divisional Hospitals are also only organised on mobilisation. They can receive as patients 6 officers and 160 men, and can, if necessary, be divided into two sections for, in each case, 3 officers and 80 men. A stretcher-bearer company, consisting of 1 officer, 9 non-commissioned officers, and 200 men, are attached to a hospital of this kind. If required, a number of divisional hospitals may be combined into a field hospital.

Two non-commissioned officers and fifty privates for each regiment are trained as stretcher bearers by the regimental surgeon-major. In time of war these men are attached to the divisional hospital for duty, and form the divisional stretcher bearers.

In regiments six men per company are trained as regimental stretcher-bearers. They are only taken if their services are required to reinforce the divisional stretcher bearers.

The Ssemenow Alexander Hospital, St. Petersburg, is an old military hospital, built in 1799. In 1886-7 a hut was added to it for infectious diseases. This hut is T-shaped, and consists of a stone cellar foundation and a wooden building above. The former contains the heating and ventilation arrangements; the latter contains five wards—one of ten beds, two of four beds, and two of two beds—in all twenty-two beds. Each ward has a separate entrance from a corridor, except the ward of ten beds which forms the cross limb of the T and is entered direct. Each ward has $5\frac{1}{2}$ cubic "sasche" air space. Ventilation and warming are according to "Swijasew" system.

THE MILITARY (ALEXANDER) HOSPITAL, WARSAW.

This two-storied corridor hospital consists of a main building having at each extremity a wing extending backwards and inclosing a courtyard, which is partly laid out as ornamental grounds and partly covered by the kitchen and washhouse buildings, summer barracks, and dispensary. The wards open only from the corridor, contain sixteen beds each, and afford about 1,000 cubic ft. of air space for each patient. Heating throughout is by hot water, and ventilation is effected by iron gratings, the gratings near the roof admitting

fresh air, whilst those near the floors abstract the foul air by means of a *cheminée d'appel*. The walls are painted in oil colours for a few feet from the floor, but there is an almost total absence of ornamentation.

On the 28th of April, 1892, there were 1,300 patients in the hospital, 350 being surgical and 950 medical cases. All varieties of disease are admitted, but 33 per cent. of the cases are tubercular. Annually there are some 200 cases of typhoid fever and 30 cases of typhus admitted, the latter being at once placed in an isolation department. The medical service embraces thirty medical officers of the army staff.

HOSPITAL SERVICE, ROUMANIAN ARMY.

The medical department of the Roumanian army includes the veterinary service. Officers of the medical and veterinary departments are first appointed apothecaries without a commission, and subsequently get their commissions, either after passing a certain probation, or on obtaining certain civil medical diplomas.

In Roumania the regimental hospital system is the only one maintained, and there are regimental hospitals. The general medical staff consists of twenty-six medical officers, told off to the headquarters of the army and to divisions and army corps. They administer the military hospitals, of which there is one at the headquarters of each division.

The military medical service consists, in reality, of two great branches, medical officers and pharmacists, the latter being subordinate to the medical officers, and assisting them in superintending the compounding of medicines, &c. Pharmacists have the rank of officers. There are four bearer companies stationed at the headquarters of the four army corps. The peace establishment of these companies is 125 non-commissioned officers and men. These would form movable field hospitals on mobilisation by means of hired transport. There is one medical officer appointed to each regiment of infantry, and two each for cavalry regiment (hussars).

HOSPITAL SERVICE, SPANISH ARMY.

The medical department of the Spanish army is under a director-general, a lieutenant-general in the army, and is divided into the surgeons' and apothecaries' branches.

In each military district there is a distinct medical staff, under a "director sub-inspector," who is usually a sub-inspector of the first class, with the relative rank of colonel. Each military hospital within the district is under the care of a surgeon-major, the number of assistants varying according to requirements.

The attendance for the military hospitals during peace is furnished by "the sanitary brigade," and is divided into fourteen sections, corresponding to the number of military districts. Each of these sections is subdivided according to the number of military hospitals in the district.

In time of war, the sanitary brigade would furnish cadres for the sanitary sections which would be attached to each army corps.

The peace establishment of the sanitary brigade is as follows:—

- 1 Second class sub-inspector (lieutenant-colonel) in command.
- 2 Surgeons.
- 24 Dressers (with relative rank of captain).
- 40 Sergeants.
- 100 Corporals.
- 40 First-class hospital attendants.
- 620 Second-class hospital attendants.
- 1 Bugler.

Of these, only a part are retained each year for duty, and the remainder are sent home on furlough. They are all under the orders of the medical authorities of the district within which they reside.

There is also a reserve of medical officers formed from those who are in civil employment. In case of war, these would be appointed acting surgeons. Their names are registered at the headquarters of the medical department.

The Spanish military hospitals were reorganised by a royal decree of the 19th of April, 1880. By this decree each hospital is placed in charge of a military officer, styled director of the hospital, who is responsible for all matters of discipline and interior economy. This officer is under the immediate orders of the military governor of the place, and reports to him on all that takes place in the hospital. The medical duties are, however, exclusively in the hands of the senior military surgeon, whilst the administrative duties are under an intendance officer. In each military hospital these form an administrative committee, the director being president and the

senior surgeon and intendance officer members, a paymaster of the intendance department acting as secretary.

Military hospitals are established at the headquarters of each military district and at all the most important stations.

The nursing duties are provided for by the men of the sanitary brigade. Formerly Sisters of Charity were employed for this duty, but by a later decree this was stopped, and they are no longer admitted to military hospitals.

The convent of San Francisco el Grande, Rosario, Madrid, has been utilised for storing hospital equipment, &c. Here every sort of medical and surgical appliance is studied with a view of perfecting the methods of treatment and transport of wounded soldiers. From this dépôt all supplies for hospitals &c. are issued to the army at home and abroad. This establishment is under the medical department.

MILITARY HOSPITAL AT ALCALA DE HENARES.

The old cloisters in the town are used as barracks, hospital, and military prison.

The military hospital is in the old cloister "de la Victoria," at the eastern extremity of the town. The sanitary arrangements of the environs and town generally are described as very bad.

The following table shows the number of beds and the cubic space available in the hospital:—

No.			Beds.	Cubic Space, cu.	Per Bed, cu.
1	Medical Ward	... .. contains	35	821.47	= 23.47
2	Surgical Ward	... .. "	30	647.95	= 21.59
3	Eye Ward	... .. "	10	191.05	= 19.10
4	Venereal Ward	... .. "	10	189.28	= 18.92
5	Slight Medical Cases Ward	... .. "	30	540.54	= 18.01
6	Smallpox Ward	... .. "	15	364.63	= 24.28
7	Infectious Diseases Ward	... .. "	20	2114.10	= 105.70
8	Detention-room	... .. "	3	92.73	= 30.91

The ventilation and lighting are both said to be insufficient. The latrines are few in number and badly constructed. There is no disinfecting chamber.

The most important diseases admitted from the garrison, are, catarrhal lung affections, croupous pneumonia, and tubercle of the lungs, which claim a large number from amongst the

soldiers. Typhus, smallpox, measles, and diphtheria are said to be endemic.

The death-rate among the prisoners is said to be very high.

MILITARY HOSPITALS, BELGIUM.

The new military hospital at Brussels may be taken as the type of military hospitals in Belgium. The building was commenced in 1882 and completed in 1888, at a cost of 2,750,000 francs; the cost per bed was estimated at 8,333 francs.

The hospital is situated in an inclosed rectangular space. The chief building consists of an administrative block of two stories, 240 metres long, with two wings 170 metres long.

In the space inclosed by the chief building there are fifteen pavilions; twelve of these contain twenty-one beds and three contain twenty-four beds, and there are in addition six beds for officers. The total number of beds is 330.

In addition to the hospital proper, three movable huts, containing in all 170 beds, can be erected on the remaining space; this makes the total possible accommodation of the hospital equal to 500 beds.

The fifteen pavilions are fourteen metres distant from one another and are connected by covered passages. The pavilions are of three different types:—

1. Three pavilions of the hut type—i.e. a large ward containing twenty-four beds, with washing-room and "tisanerie" at one end and water-closet at the other.

2. Six pavilions, with central ward, and two rooms partitioned off at each end; at one end a room for infectious disease and a sick-attendants' room, at the other end a day-room and washing-room with water-closet.

3. Remaining pavilions with two wards for eight beds at each end, and four rooms (infectious ward, washing-room, attendants' room, &c.) in the middle on either side of the central passage.

The pavilions lie south-east and north-west, and are 85 cm. above the ground.

The windows have two sashes, each with a ventilating pane, with window shutters for summer. The ceiling is ogival, the highest point being 5 m. 75 cm. high, sloping to 4 m. at the walls. Between it and the roof is a space 1 metre deep. A zinc covering on the roof is intended to act in summer as an aid to ventilation by heating the stratum of air underneath. The ceiling and

walls are painted with white oil colour. The floors are of well-seasoned oak ; the wash-rooms have flags for flooring. The rooms for sick-attendants and those intended for "tisaneries" have small gas stoves for heating them. The bedsteads are made of iron, oak-stained ; they are placed at right angles to the long diameter of the ward, and 40 cm. from the wall, in the intervals between the windows. The bedding consists of a steel wire mattress, a wool mattress, two pillows, blankets, and counterpane. The bed-head tables are made to act as chairs or commodes when required. The latrines are on the water-closet system ; the flushing is arranged to act automatically by sitting on the seat. The cubic space per bed is 45 cm., and the superficial area 9 square metres for each bed. For ventilation there are registers, suction tubes, openings under the windows and the heating apparatus. The registers are in two rows, the lower 15 cm., the upper 3'80 m. from the ground. Each register communicates with a ventilating shaft opening at one end into the space between the ceiling roof and at the other under the floor. By this means 80 cm. of air are changed hourly for each bed. The suction tubes pass from the ceiling and open into the air outside above the roof ; they are made of zinc and have a vane. The ventilation panes lie in the upper half of each window and open inwards. The openings under the windows let in air from outside and are covered with a metal grating, and can, if required, be completely closed. There are two openings beneath each window, one of which communicates with a heating apparatus, so that in winter warm air of 18° Cent. enters at the rate of 80 cm. per bed per hour.

The pavilions, passages, kitchen, bath-rooms, and chapel are heated by steam, the other rooms by an ordinary stove. The steam heating system is that devised by Körting of Paris. The temperature maintained is 18° Cent. in the wards, 22° Cent. in the bath-rooms, and 16° Cent. in the attendants' rooms.

The lighting is by electricity, generated by two dynamos of 42-horse power. The lamps in the wards equal 8-candle power, those in other rooms in the pavilion 16-candle power, and in the administrative block 32-candle power. There is also a portable lamp. The whole of the buildings can be lighted by gas if required.

The water supply is chiefly taken from the Brussels City Water Company. There are also six storage cisterns in the hospital grounds, the water from which is mainly used for baths, &c. The kitchen is attached to the main building, and the cooking is by steam.

The distribution of patients is as follows: Three pavilions are appropriated for external diseases, three for internal, one for eye cases, three for venereal diseases, two for contagious diseases, one for convalescents, one for non-commissioned officers, and one for a dining-room for such sick as are able to be out of bed. For sick officers there are six beds in the main building, in rooms for one and two beds each, with one room as a sitting-room.

The operation theatre is completely separate from the pavilions; the roof is double and of glass; the operation table is of zinc and capable of being warmed.

There is no covered way between the operation-room and pavilion. This is considered a great defect.

The dispensary is in the main building, where also are kept the medical stores, laboratories, &c.

Bathing arrangements are for hot, cold, and douche baths. Disinfection is carried on by hot air and steam under low pressure.

For sick-attendants there are two rooms for non-commissioned officers, five rooms for thirty-two unmarried, and four quarters for four married attendants. The latter consist of two rooms, kitchen, cellar &c.

The library is maintained by voluntary subscriptions. This hospital has been reported on as being "perfect."

MILITARY HOSPITALS, HOLLAND.

The military hospital at Amersfoort, Holland, may be taken as a type of the military hospitals in that country, although this is the only one built on the pavilion plan, which is doubtless the plan that will be adopted in future whenever hospitals are erected for the reception of sick and wounded soldiers of the Dutch army.

The buildings are situated in one of the outlying districts of the town of Amersfoort, the extent of the site being a little over five acres. The hospital is removed from any other buildings, and is open on all sides.

The administrative block is on the centre of the site. The basement of this building is fitted up as store-rooms, and one room which is used for insane patients or prisoners. The ground floor contains rooms for the porter in attendance, and two rooms used as offices. It is entered by a spacious hall, at the end of which is the main staircase, on the right of which is the kitchen, and on the left the dispensary and a "tisanerie." The first floor contains the

"offices of the administration." There are also two rooms for officers on this floor, the office "bureau," and a store-room. The next floor contains the linen and clothing stores. The water cisterns for supplying the establishment are also on this floor.

Four pavilions, one story in height and connected at one end with the central administrative building, are situated two on one side and two on the other. Each pavilion has a large ward containing twelve beds, and two smaller wards with two beds each. To the rear and at some distance is another pavilion, also one story in height and not connected with any other building, used for the reception of patients suffering from diseases of an infectious or contagious character. In this block is one room for eight, one for four, and two for one patient. Between this pavilion and the administrative block is the pump-house and well which supply water to the hospital.

The total accommodation which this hospital provides is for seventy-eight sick, *i.e.* in each of the large pavilions thirty-two, and in the infectious wards fourteen beds.

No laundry is provided, as the washing is done in the town of Amersfoort.

The large ward in the pavilions is 38 feet long, 26 feet 3 inches wide, and 18 feet 6 inches high, including the ventilating ridge roof, which is 5 feet wide and 3 feet high, and runs the whole length of the ward. The loss of heat through this roof is so great that it is impossible to keep the wards warm; for this reason two of the pavilions, having roofs of this construction, are only used in summer. The other pavilions are the same size, but the roofs are differently constructed (without a lantern and ridge), so as to admit of their being properly heated. The cubic space per bed is 1,585 cubic feet, and the superficial area 83 square feet in the former. In the latter 1,330 cubic feet per bed is allowed. There are three windows in each side wall. The upper sashes are so constructed as to fall forward into the wards by means of lines and pulleys.

The warming of the wards is effected by two stoves. Air passes from the outside round the stoves and is distributed throughout the ward; the air in its passage is moistened by water contained in iron receptacles placed in the air-jacket.

The ventilation is carried out in the summer wards by the windows and lanterns. There is also a channel beneath the floor from the outside wall and opening beneath the stoves, as already mentioned; these channels admit fresh air, which is warmed.

Foul-air shafts, 1 foot 4 inches square inside, through which the stove flues pass, are at either end of the ward ; by their warmth they induce an upward current in the ventilating shafts. These shafts run from the level of the floor to the ridge of the lantern ; the foul air passes out of the ward into the flues through openings placed next the floor on the sides opposite to that on which the stoves are placed.

The water-closet and bath-rooms are placed in a room near the entrance from the corridor. The water-closet arrangements consist of an earthenware pan, which empties itself into an iron tank situated beneath it. These tanks are removed daily, and emptied on land far away from the hospital. The rooms are not separated by cross ventilation, and the method of disposal leads to an insufficient supply of water for flushing purposes ; the plan is therefore open to objection. The surface water from rain, sinks &c. is led by drains into a watercourse running in close proximity to the hospital.

At the farther end of each ward, and entered from the passage leading to the recreation grounds, are two separation wards, each containing two beds ; they are 15 feet 5 inches long, 11 feet 5 inches wide, and 16 feet high. The cubic space per bed is 1,408 cubic feet, and the superficial area 88 square feet.

The nursing is carried on by orderlies. No female nurses are provided for.

The total cost of this hospital is stated to be £15,000, or £192 6s. 3d. per bed, exclusive of the value of the land.

MILITARY HOSPITAL AT BUENOS AYRES.

This hospital contains two administrative buildings and four pavilions on the "Tollet" system.

There are 34 beds for officers. The normal number of beds for sick is 250, but arrangements are made that, if necessary, this number may be increased to 500.

The cubic space per bed is 37 cm., and the superficial area 8 square metres.

The water supply is said to be abundant and of excellent quality. The hospital is lighted by the electric light. The space between each of the pavilions is 30 metres.



CHAPTER XXXIII.

MEDICAL SCHOOLS.

THE relations of medical schools to hospitals are so intimate and important that no description of the latter would be complete without an account of the former. Not only are hospitals placed at the disposal of the authorities of medical schools for the clinical instruction of their pupils, but the two institutions are very largely manned by the same individuals, an appointment on the staff of the hospital carrying with it, by custom if not by by-law, some definite status in the medical school, and, similarly, the junior appointments in the school being very sure stepping-stones to the medical and surgical staff of the hospital. The control and management of the school are often vested largely in the governing body of the hospital, and in nearly all cases in this country the financial relations between the hospital and school are very close. The hospital is called upon to provide proper facilities for the carrying on of the clinical teaching within its walls, involving the provision of larger out-patient rooms, operating theatre, lecture-rooms, and laboratory; and the other school buildings—theatres, class-rooms, library, museum, laboratories, &c.—are either provided by the hospital authorities or built with money advanced to the school by the hospital. We shall see, too, when we come to enter into the details, that hospitals in some cases make annual grants in aid of certain of the working expenses of the school.

Enough has been said to show the very close association in the three important elements of *personnel*, government, and finance of hospitals and medical schools, and at the outset we must consider

how far this is justified in the interests of the hospitals, the schools, and the public.

A. *The Hospital*.—How and to what extent does a medical school attached to a hospital further its great object of the relief of poor sick folk? We may answer this question by noticing the effect upon the staff and upon the work in the hospital. First of all it acts very powerfully in securing for the honorary staff of the hospital the ablest members of the profession. The holding of some paid teaching appointment often enables a young man to devote many years after he is legally qualified to practise medicine, to the further close study of his profession, and thus to become more highly trained and skilled. And then, when all this work is bearing its legitimate fruit in the shape of a large private practice, the connection with a school often keeps such a man at work at his hospital much longer than would otherwise be the case. The fees received for clinical teaching may in some instances be a motive for this; but more generally it is the greater interest that attaches to hospital work when combined with teaching a large class of active, intelligent students, and the relief that the change of work affords to many men in busy practice. In some cases the attraction is the pleasure of teaching, and in many others, the help in elucidating special points in pathology or practice that a class of students is willing and able to afford, is greatly valued. The first good effect of a school upon a hospital, then, is that it secures and retains the services of the ablest members of the profession. But its influence upon the daily routine and work of the hospital is even more marked. The students act as unpaid servants of the hospitals, doing work as dressers and clerks which otherwise would be left undone or entrusted to paid nurses and house-surgeons. The senior students when qualified fill the junior offices on the staff, such as house-surgeons and house-physicians, usually without any remuneration, and they are selected for these offices by those who are well acquainted with their character and abilities. Hospitals without schools, as a rule, have to pay salaries to these officers, and the election is conducted with very little, if any, personal knowledge of the candidates. The presence of students at a hospital aids in securing the regularity and punctuality of all the hospital work. A teacher who has to meet a class must be regular and punctual, if he is to be successful; but this necessity is not so urgent in the case of a merely professional visit to patients in a ward. This punctuality on the part of physicians and surgeons is, however, most important

for the smooth and easy working of the hospital, and unpunctuality almost always leads to hurry and inefficiency.

But the chief benefit of the school is to be found in the more complete investigation of the patients which it renders possible and indeed obligatory. It is the duty of the dressers and clerks to write out a careful and systematic history not only of the particular illness or accident for which a patient becomes an inmate of a hospital, but a record of the family history and an account of the patient's previous health. Then follows a complete account of the patient's condition on coming into the hospital, which includes the condition of other organs than those obviously diseased or injured, and notes on the progress of the case are added from day to day or at longer intervals. This systematic note-taking is only possible where there is ample assistance to the honorary staff of a hospital, and practically only where there is a sufficient medical school. It has the double advantage of securing accuracy of observation and thoroughness of examination, and often leads to the detection of maladies unknown to the patients, and that would have escaped observation if the examination had not been complete and methodical. Such knowledge is power—power to guard against or ward off unknown but threatened danger—and often it proves power to deal more quickly and successfully with the patient's malady than would otherwise have been the case. But the students also make frequent qualitative and quantitative examinations of the urine, &c., microscopical examinations of sputum, urinary deposits, &c., and bacteriological examinations of discharges. To do this technical knowledge and skill are required, and more time than the physicians or surgeons can possibly devote to it. And, lastly, in the actual treatment of the patients, students render the most important help. In many clinical hospitals all the surgical dressings, bandages, and splints are applied by the students; they carry out electrical treatment where required; certain forms of treatment, such as the digital compression of an artery, are only possible when the help of students can be secured; and in cases of threatened hæmorrhage and other similar conditions, the clerk or dresser of the case is the best of nurses.

These are some of the direct advantages to the patients in hospitals arising from the presence of medical students. But an indirect advantage must not be omitted. The fact that a physician or surgeon is called upon to make his diagnosis of a case, discuss its special features and the bearing of the many facts brought out

in the clerk's "history," and then direct the treatment, before the eyes of well-trained observant students, who are keen if kindly critics, must exert a healthy stimulating effect, and prove a strong incentive to leave no stone unturned to arrive at the truth and to do his best for the patient. And when we remember that the foundation of a physician's professional repute is the impression he makes upon his students for care, accuracy, and skill, it will be seen that the daily attendance of a class of students in the wards of a hospital is the strongest safeguard against superficial or careless work on the part of attending physicians or surgeons.

But is there no other side of the account? It is sometimes stated that the presence of students must be a cause of great mental, and of some physical distress to the patients, and it is not uncommon to find women, particularly, prefer to go to a hospital where there are no students. But we may safely say such an opinion is always formed *a priori*. The conditions of residence in a hospital must always be strange at the outset to all patients, and the presence of students at first may even be felt to be embarrassing, but this feeling quickly wears off and is replaced by quite an opposite one. For by their kindness and skill, students quickly win the confidence of the patients, and their presence is a great element of brightness in a ward, and does very much to relieve the *ennui* and loneliness which might otherwise be felt. It is notorious that patients are delighted—not grieved—when they find their case to be one of special interest to the students and one on which frequent demonstrations are given. Of course discretion is constantly called for, that repeated examination shall not be hurtful, but this discretion is rarely if ever wanting. Anyone who would allow a number of students to examine a case of acute pneumonia, or to feel some exquisitely sensitive swelling, or to manipulate a recently broken bone, or to do any similar injury to a patient, would be entirely unfitted for his post; and the high character for humanity that the profession admittedly holds is a sufficient answer to the charge that such things are done in clinical hospitals.

We may therefore say that the connection of a medical school with a hospital is a most important aid to the hospital, viewed solely as a charitable institution, by securing the services of the ablest members of the profession as physicians and surgeons, by affording a large amount of skilled but unpaid assistance in the work of the wards, by leading to the most regular, systematic, and painstaking study and investigation of the patients, and by adding a good deal

to the cheeriness and happiness of life in the wards. These advantages can be and are secured without any countervailing drawbacks.

One other indirect advantage of the connection of a medical school with a hospital may be mentioned. It lies in the wider area to which the hospital ought to be able to appeal for support. The students, after leaving the hospital, settle in practice in all parts of the country, and are often able to secure financial help for their *alma mater* from sources to which the hospital authorities could not successfully appeal.

B. The Schools.—Good clinical instruction and the opportunity of making himself practically familiar with methods of examining and treating patients, are the two most important elements in the medical student's education. Excellencies in other departments of a school can never compensate for or even mitigate the ill results of defects in these. To obtain this instruction and these facilities it is necessary to have in the first place a sufficient and a sufficiently varied material in the form of patients. A hospital of some size—certainly more than 200 beds, and a large out-patient department in addition—is necessary, and its wards should be open to all classes of injury and disease. In many cases there are restrictions against the admission of cases of the more infectious diseases, and they are necessary in the interest of patients, unless special accommodation is provided for them. On this matter we will say something more farther on. The honorary staff of the hospital must be formed of men of wide experience, who possess skill and ability in teaching, and are willing to devote time and trouble to the instruction of students. The students require certain special facilities, proper rooms for clinical instruction and the examination of patients, one or more properly equipped laboratories for the pursuit of chemical, microscopical, and bacteriological investigations, and free access to the wards at all reasonable times. Further, it is necessary that the students should be freely appointed to the offices of dresser and clinical clerk in order that the advantages derived from the holding of these posts may be within the reach of all, while the more valuable posts of house-surgeon and house-physician are awarded as prizes to the most deserving of the students.

Hence it follows that the special needs of the school may rightly influence the choice of a physician or surgeon to fill a vacancy on a hospital staff, and that the authorities of a school have a great influence, either direct or indirect, in all elections to the hospital staff.

It is evident that the close association of a particular school and hospital acts powerfully in keeping alive the interest of the hospital staff in the welfare and the good training of the pupils of the school. It allows of much closer personal influence of the teachers upon the taught than would otherwise be the case, and of a better and more thorough supervision of the students. It also serves to break up the great general body of medical students into smaller groups—a most important thing for the proper teaching of practical medicine and surgery. Were students allowed perfect liberty of choice in their clinical teachers, there would be a danger of certain individuals securing huge and unmanageable classes, while others were left without any pupils at all, and the students would lose time in running from hospital to hospital to get here their clinical medicine, there their clinical surgery, and somewhere else instruction in some special branch of knowledge. As it is, the choice of some one or other popular teacher is checked by other considerations bearing upon the selection of a school, and students are more or less evenly distributed among the schools, and receive all their clinical training in one building; they become personally well known to their teachers, often powerfully influenced by them, and the bond between them is not rarely a very close and intimate one. Lastly, this association of school with hospital is a very great aid to the smooth and harmonious co-working of the two institutions. The authorities of the hospital come to take a deep interest in the prosperity of the school and of its pupils, and they know intimately all those connected with the school, while the authorities of the school have as strong and vital an interest in the welfare of the hospital as in the prosperity of their school. This blending of interests, and the intimate knowledge of individuals which soon leads to mutual confidence, smooths away difficulties and facilitates arrangements which, under other conditions, would be fatal and impracticable. Undoubtedly, then, the plan of the close connection of a hospital with an individual medical school is one that is attended with great advantage to the school.

C. *The Public*.—If what we have said in the two previous sections is correct, it follows, as the shadow the substance, that the general public gain largely by the special arrangement we are considering. Hospitals we believe to be of immense service to those to whom they directly minister, but their larger and more important work is done for those who never come within their doors. Hospital patients even now are but a small proportion of the people, but every man, woman, and child in civilised countries is dependent

upon the work done in hospitals. Everything that promotes the better and more efficient education of medical practitioners promotes the welfare of their patients. And everything that facilitates the scientific investigation of disease, of its causes and favouring conditions, and its natural history, is a step towards its prevention, mitigation, and cure. And as clinical hospitals are of great service in training students and are the most fruitful fields for medical research, they are the institutions of greater value than any others for the maintenance of the good health of the community at large. It would be well if there were a keener and a more widespread appreciation of this fact, and if the general public took a more enlightened interest in the proper training of its medical men. From selfish motives alone they would then see to it that nothing was wanting which could promote the complete efficiency of the clinical hospitals, and the harmonious co-operation of all concerned in the great work of teaching and training medical students.

The Government of Medical Schools.—The medical schools of Great Britain have originated in three ways. Some have been from the first departments or "faculties" of universities or colleges; some have been founded by the united staff of a hospital with the sanction and goodwill of the governing body of the hospital; while others have been started as the private classes of an individual. This difference in origin accounts in some measure for the differences in the government of the schools which are met with at the present time. For in one case we find the medical school controlled by the general council or senate of the university or college, in another by a joint committee of teachers in the school and governors of the hospital, and in a third by a committee of all the teachers in the school only. At those hospitals, such as St. Bartholomew's and Guy's, where the treasurer is the supreme authority, he is also at the head of the medical school. The medical faculty of a college or university must of course be under the control of the general council or senate of such a body, but the teachers should be well represented on the governing body, and be able to make their views known to it in some authoritative way. To secure this one of two plans may be adopted. The medical representatives on the council may be delegates chosen by the general body of teachers in the medical school whose views they represent, and to whom they can refer for instructions on any special or novel point. This plan largely impairs the deliberative and authoritative character of the council or senate, and it often involves great expenditure of time

and frequent meetings as new developments of a subject arise and have to be referred to the teachers. The better plan is to have the medical members of the council selected not as delegates but as representatives; they should be chosen, not on account of seniority or of holding certain official positions in the school, but for their experience, their interest in the details and development of medical education, and their known ability to take a broad view of a question uninfluenced by personal or party feeling. And such representatives should serve on the council for a series of years to insure a continuity of policy and to secure the benefit of their continually increasing experience. At the same time the teachers in the school should have the power to meet in committee and discuss the many questions constantly arising in connection with changes and improvements in medical education, and with the work of that school in particular. The minutes of this committee of teachers should be read at the next ensuing meeting of the council or governing body, which is in that way always conversant with the views of the teachers.

In the case of a medical school connected only with a hospital, opinions differ as to the desirability of associating laymen with the teachers in the management of the school. It is held that medical teachers are alone fully cognisant of the requirements of a medical school, of the best ways to conduct medical education, and of the directions in which changes and improvements are needed. Laymen on a committee being unable to enter fully into a discussion of these matters, would be prone to lose interest in the management of the school, and to look at all matters from the standpoint of governors of the hospital only. Further, it is held that as the finances of the school are entirely distinct from those of the hospital, and the teachers are alone affected by the financial prosperity or failure of the school, they only can of right claim a voice in the control of expenditure. And it is also maintained that each lecturer and teacher in a school should have an equal voice in the management, inasmuch as the students' fees are, with some exceptions, all paid into one common fund from which all working expenses are paid, and the balance is then divided into equal shares which are distributed according to some prearranged scale among the different lecturers. It therefore follows that each teacher is interested not only in the efficiency, popularity, and economical management of his own department, but almost equally in all the other departments of the school. It must be admitted that there is

much in these arguments, and it is not to be wondered at that they have had paramount influence in many schools : and this in spite of certain obvious practical disadvantages. In the first place a committee of all the lecturers and teachers is too large a body ; the attendance of some members of it will be regular and of others very irregular, and this involves considerable waste of time, loss of executive momentum, and the danger of some " snap " vote, secured by a careful " whip up " of usual absentees, overriding the decision of those who have given much time and consideration to a matter. It also may happen that men of great value to a school as teachers and lecturers may have no business talent, and may be quite lacking in interest in, or capacity for, the discussion of matters of vital interest to the school and of medical education. In some cases also there is found to be a want of solidarity in such a committee.

On the other hand, there is much to be said in favour of the other plan—that of a joint committee of teachers and laymen. In the first place the lay governors of a hospital are concerned in the proper conduct of the associated medical school, and they ought to be deeply interested in its prosperity. Although, as we have attempted to show, a hospital is greatly benefited, even financially, by having a good medical school attached to it, yet there are the two sides of the account, and it greatly facilitates the smooth co-working of the two institutions when requests and suggestions coming from the school committee to the hospital board have already been discussed by, and received the approval of, influential governors of the hospital. In the matter of finance, too, it is important to remember that although the school and hospital funds are quite distinct, and no moneys are ever transferred from one to the other, yet it is customary for a school to obtain loans from the hospital to pay for the erection of new buildings or for any extensive capital outlay. It is not unusual for a hospital to have several thousand pounds of its funds invested in this way. The real security of such an investment lies in the prosperity of the school, and in its ability to pay the interest and wipe off a portion of the debt every year, and not in the realisable value of the buildings erected. It is therefore only reasonable that the governors of the hospital should have some voice in determining how and when such expenditure should be entered upon, and should be able to take steps to secure the efficiency and prosperity of the school. The association of well-chosen laymen in the management of a school is likely to give greater weight to the actions and decisions of the committee of management, and to free

them from narrow, personal, and sectional bias. The plan is in operation in one or two London medical schools—the London Hospital and Westminster for instance—and it is found to work well. The conditions necessary for its success are a committee not too large—twelve is a good number—in which the lay and medical members are equal or nearly equal in number, the medical members in the latter case having the advantage. The medical members should be the chief executive officials, the dean and the treasurer, and others selected not by seniority, but for their special fitness for the management and wise development of the school; and when it is found that they attend to the duties of the committee punctually and regularly, and that they approach all questions without bias or prejudice, looking only to the welfare of the school, they should be kept in office for several years. The lay members who, whether appointed or not by the governing board of the hospital, should be answerable only to the general body of governors, should also be selected with great care. They should be men of wide sympathies, if possible with some special knowledge of education, and who are prepared to devote the time necessary to the thorough working of the committee. Such a committee, it appears, may be a real source of stability and strength to a school, and, particularly in all matters of discipline, its decisions will have more weight than those of a purely medical body. In matters of discipline there is a further advantage. Offences committed in the medical school must be dealt with by the school authorities, but those committed in the hospital should be dealt with by the hospital authorities. Where there is a joint committee of management of the school, all matters of discipline, however arising, can be brought before it.

The committee or council of management of the school has the entire control of the school. It determines the conditions under which students are received, and the amount and manner of payment of the fees; it appoints all lecturers, teachers, and other officers; it arranges the hours of lectures, and is responsible for the proper supply of teaching “plant,” such as diagrams, models, and the apparatus necessary for the proper equipment of the laboratories. It has entire control of the finances of the school, authorising all expenditure, paying all salaries, and being responsible for the due apportionment of the balance among the lecturers and teachers. It has to maintain the school buildings in proper repair, and has to effect improvements and additions when required. This work

is largely done by two or three executive officers—the treasurer, the dean, and the secretary.

The Treasurer is always chosen from the senior staff of the hospital. All fees are handed over to him by the official appointed to receive them, and he has to check this official's books and see that the proper amounts have been paid by the students, and handed over to him.

He has to keep the school accounts, and in addition to keeping a record of all receipts and expenditure, he has to keep a book in which the payments of each student are separately entered against his name. For as a rule a student does not pay fees for separate classes, but a composition fee for the entire curriculum, and this fee is paid either in one sum on entrance or in two, three, or more instalments. It is necessary to have a careful record of the payments of these instalments by each man. The treasurer pays all wages and salaries, and all the school accounts after they have been passed by the committee. At a given time each year he has to prepare his balance sheet, showing all receipts and expenditure, and the allotment of the balance; and when this has been passed by the committee he has to distribute the allotments. This is often no light task, for it frequently happens that year by year some special expenditure is arranged to be met by a charge upon some portion only of the fees received, or of some particular allotment; and in other cases special grants are made to certain lecturers, and these are either grants of definite amount or a percentage upon the total receipts, some branch of receipts, or a capitation upon a certain class of students. There is a tendency to meet new expenditure in this way rather than by altering the original apportionment of the balance of income and expenditure. But, unless checked, it tends to make the accounts exceedingly complicated. It is a practice to be strongly deprecated, and only tolerated to a very limited extent and under very special circumstances.

All fees should be paid to one officer only, who should give proper stamped receipts with counterfoils to be initialled by the treasurer when he receives the moneys. The school funds should also be deposited in a bank in a separate account. All payments by the treasurer should be made by cheque. When these precautions are taken a satisfactory audit of the accounts is easily made, and although they are very elementary points in finance, it is not unnecessary to mention them in connection with the management of medical schools.

The Dean is the chief executive officer of the school, and upon the choice of a dean much of the success or failure of a school may depend. His duties vary in different schools: in all they are responsible, in some very arduous. As far as possible, all clerical and secretarial work should be taken from him, and he should be left free for his more important duties. These are to superintend generally the work of the school, to guide the students in their curriculum, and to keep such an eye over them as to be able to advise them in all matters pertaining to their education. It is to the dean that parents and guardians should apply for information as to medical education in general, and his own medical school in particular; it is by him that the student is enrolled in the list of students, and by him that all minor matters of discipline are dealt with. The grosser breaches of discipline he has to bring before a special discipline committee, or the general committee of management of the school. It is to him that students—or their parents—go for advice on any matter connected with professional education. So far as possible, the time and energy the dean can devote to his duties are best spent in making himself acquainted with the students individually, and in exerting his personal influence upon them. Through his knowledge of the students he will also obtain most useful hints as to the best ways to increase the efficiency of the school and promote the welfare of the men. In some cases, the dean receives the students' fees; as a rule he signs all certificates of attendance, receives the reports of examinations, arranges for special classes, and by his colleagues is held responsible for the general efficiency of the school.

For such duties as these all the members of a hospital staff are not equally qualified, and the office is not one that should be held in turn by each, but care should be taken to select one who is likely by his personal interest in, and influence over, the students, as well as by his punctuality and business talent, to do the work of the office efficiently. The dean should be elected annually, and be eligible for re-election, and when it is found that a wise appointment has been made, it should be continued for some few years. But it is not wise to continue a dean in office too long, or after his duties have lost interest for him, nor so long as to make him appear indispensable to the school.

The Discipline of a Medical School is altogether different now from what it was even a few years back, and great advantage has resulted from a stricter attention to it. It is best managed by a

specially appointed discipline committee that should meet regularly throughout the session. Its duties should be to ascertain that the students are attending their lectures and other duties regularly, and for this purpose the attendance list upon all lectures should be laid before the committee at each meeting, and any students who are deficient in attendance should be summoned before the committee. In the same way the results of all examinations should be reported to this committee, who should interview all students who are seriously backward in their examinations, and, so far as possible, ascertain the cause or causes of this and endeavour to remove them. In this way such a committee is of the utmost help to the students, supplying just the pressure that some men need to keep them at their work, and guiding others who have got into difficulties with the curriculum, or are working in a wrong way. They are also able to put pressure upon really idle men, and if this proves useless they can advise their removal from the school. These are the chief duties of a discipline committee; what are more commonly known as breaches of discipline are infrequent, and of course are dealt with by the same committee. The minutes of this committee should be regularly laid before the general committee of management of the school, and in any case in which the discipline committee thinks it desirable to rusticate or expel a student, a report should at once be presented to the committee of management, which alone should have the power of taking such a serious step. The discipline committee also takes cognisance of any irregularity or unpunctuality on the part of the lecturers, teachers, and demonstrators.

Closely connected with the question of discipline is that of the advisability or not of residential colleges in connection with medical schools. Five of these colleges have been established in London: those at St. Bartholomew's Hospital and King's College are comparatively old, those at Guy's, St. Mary's and Middlesex Hospitals are quite new. The arguments in favour of such colleges are mainly three: First, that the association together of young men in college is an important means of education, and tends to develop a higher and better type of manhood than is fostered by a solitary life in lodgings; secondly, that it permits of a certain amount of oversight being kept upon the students, and protects them from some of the special evils attendant upon life in lodgings in London; thirdly, that proximity to the hospital affords the students additional facilities for study, as they can see special cases admitted to hospital during the evening or night, and attend operations at other

than the usual hours. Up to the present time, however, they have not been a striking success. This may be partly accounted for by the fact that they are a comparatively novel feature in connection with London medical schools and London collegiate life. The conditions of life in London differ so widely from those at Oxford and Cambridge that it is not easy to introduce into metropolitan schools the customs of the old universities. Further, a large number of medical students come from London homes, or have relatives or friends in London with whom they live, or live with medical practitioners, and give some assistance during certain hours of the day in part or whole payment for their board and lodging.

Something, too, must be attributed to the fact that the traditions of the profession are all in favour of the free and unrestrained life in lodgings. But there is one other consideration of still more importance—that of expense. It is undoubted that students can live in lodgings at a cheaper rate than they can in college, and as medical students are largely drawn from those sections of the middle classes to whom the cost of professional education is a serious burden, this acts powerfully against the popularity of residential colleges. It has not yet been shown that such colleges promote the industry of students ; the mere association of a number of young men in a college, of course, affords many temptations to spend the evenings in other pursuits than those of study, and the hard-working man—and there are very many such in all medical schools—will probably always look out for some quiet home away from his hospital where alone, or with one boon companion only, he can be sure of enjoying uninterrupted evenings for steady reading. Very much of the success of a college depends upon the special fitness for his post of the warden or head of the house. And here again peculiar difficulties arise. The present race of medical men have not been trained in colleges, and have little or no experience in their management and discipline, while those who are engaged in consulting practice are obliged to live within certain well-defined limits, and, as a rule, residence in a college is quite incompatible with professional prosperity. All these considerations tell heavily against the colleges, and will probably prevent their general establishment or large extension. But the advantages which colleges offer are so real that they will always be supported to some extent, and it is possible that the increasing number of men who study at Cambridge and Oxford for three years and then come to London for their clinical work will silently produce a stronger

prejudice in favour of the collegiate system in medical schools. Some have even gone so far as to urge that residence in college should be made compulsory upon medical students as upon undergraduates at the older universities, but it is evident that at the present time such a course is wholly impracticable. It has also been suggested that a system of licensed lodgings should be established, and that extra-collegiate students should be compelled to live in them. London, however, is ill adapted to such a scheme. It is easy and often advantageous for students to lodge at some distance from their hospital, where any supervision of the lodgings by the school authorities would be quite impossible.

It cannot be too plainly stated that the great discipline for medical students is work. So long as a student is punctual at his classes, does well at examinations, and is obviously interested in and progressing in his studies, no great anxiety need be felt about him. And if the school authorities are able by the dean, or the discipline committee, or in any other way, at once to note a man's irregularity at his classes and neglect of his practical work, and can bring suitable influence to bear upon him to remedy this, they need extend their inquiries no farther. For a student the chief difficulty of the medical curriculum is the insufficient time allowed for the thorough mastery of its various departments: for an idler, it is the abundant opportunities it affords for idleness. A man *ought* to dissect three hours a day at least, but he is not *compelled* to do so; the mere attendance at lectures can be enforced, but it is difficult, if not impossible, to insist upon an equally regular and complete attention to the practical parts of the curriculum. Idleness is the one great cause of all other evil habits in medical students—it is their parent rather than their offspring—and therefore if students can be kept at work, all other discipline will be found unnecessary.

Finance.—The financial relations of a medical school with its associated hospital are very important and oftentimes complex. The simplest arrangement is for the hospital authorities to erect and to own the school buildings and charge a fixed annual rent to the school, and then to charge a percentage upon the total fees received from the students to defray the cost of maintenance and repair of the buildings. But, as a rule, hospital authorities have refused—and not without reason—to build medical schools with the funds subscribed for the charity, and have preferred to leave the whole responsibility for such buildings with the school authorities, merely assisting them by advancing the necessary funds at a low rate of interest, on the

understanding that the buildings when erected are the property of the hospital. Where the school is placed on the hospital freehold, no ground-rent is charged. Such an arrangement as this at once introduces complications, and although in practice it may be made to work well, and probably safeguards the interests of the hospital in the best manner, it renders it impossible to assess with entire accuracy the sum that the school should contribute annually towards the cost of maintenance.

The rate of interest charged on the school loan should not be below that earned by the bulk of the funded property of the hospital, and it ought to depend also upon the history and prosperity of the school. At the present time, where a school has been long established and has kept well abreast of the times, its number of students increasing and its financial position being good, 3 per cent. should be charged. But where the venture is more hazardous, the financial position of the school being less good, and the security of the investment by the hospital less sound, 4 per cent. is not too high a rate of interest to charge. The amount of the loan should be annually reduced by a graduated tax upon the total income of the school; it is important to insist upon this, because with the constant development of medical science and the improvement of medical education new requirements arise and fresh alterations and additions to the school buildings become necessary. And it is not desirable that the hospital should at any one time have a very large sum advanced to the school. That the sinking fund to pay off the loan should be a graduated tax upon the income of the school is only just, because while the income will vary with the number of students in attendance, the cost of maintenance of the school remains practically stationary. A charge of 5 per cent. on the first £1,000, rising 1 per cent. with each succeeding £1,000, is suggested as reasonable, it being taken for granted that the amount of the loan bears some proper proportion to the income of the school—a loan of two, or under very special circumstances of three times the average income of the school, being the maximum.

It is better for the hospital authorities to keep the school buildings in proper repair than to leave this to the managers of the school. In the first place the hospital has officers, whose business it is to manage such matters, and they can therefore judge well what is needed and see that the repairs are well executed; and it is convenient and economical that the same firms should be employed for the hospital and the school. But the school should meet the

expense of these repairs, although it avoids various difficulties if this is done in the form of a percentage on the income of the school. It is not convenient or satisfactory for the hospital and the school authorities to be discussing whether this or that item should be included in the annual specification for repairs, and if this is not done it becomes impossible to charge the school for specific works done. It saves all trouble and is quite satisfactory to both parties if, say, three per cent. on its gross receipts is paid by the school to the hospital to cover entirely such charges, and also the cost of heating and lighting the school. There does not seem to be any sufficient reason for a school to look to the hospital for any grants in aid of special departments, such as the museum and library, although in some cases these are made, and it would be unwise ruthlessly to disturb arrangements long carried out with mutual satisfaction. Beyond these items of account there is the balance sheet, which does not admit of precise statement of profit and loss. As we have attempted to show in an earlier part of this article, a medical school is an element of expense to a hospital in some directions and of saving in others. It is impossible to state with any approach to accuracy what ought to be placed on the two sides of this account, and year by year the items vary. But it is probably safe to say that the two sides of the account either balance or show a balance in favour of the hospital.

Coming now to the internal finance of a school we can dismiss in a very few words the first charge on the funds—working expenses. These consist of the salaries and wages of the librarian, curator, porters, and assistants, of books and stationery, and other sundries. Proper economy in these matters must, no doubt, be exercised, but not at the expense of thorough efficiency; the library must be carefully maintained, and it must always be borne in mind that good servants command good wages and are far cheaper than lower priced but inferior ones. But in another item, viz. advertisements, rigorous economy should certainly be exercised, not only because it is an unproductive form of expenditure, but because it is an unworthy practice on the part of institutions claiming to rank as of university standing. Then will come the special expenses of the various classes, such as diagrams, apparatus, and material of various kinds. In some schools each lecturer is expected to defray all the special costs of his own class; in others all these are paid for out of the school funds. In allotting the shares of the profits of the school among the different lecturers this fact has to be carefully

borne in mind. The argument in favour of the former practice is that the lecturer is the best judge of the requirements of his own class, and that if he is responsible for providing for them he will exercise greater economy in so doing, and will be likely to take greater care of apparatus he himself purchases than if this be left to the whole school to supply. But the serious drawback to the plan is that it puts a premium on economy rather than on efficiency, and it is not unknown for a lecturer to regard certain aids to instruction as of little importance if only they happen to be costly. And then again certain forms of apparatus are so expensive that, although most useful to a class, it would be impossible for a lecturer himself to afford them out of the proceeds of his lectures. For these reasons we greatly prefer that the legitimate cost of teaching should be defrayed by payments from the general school fund, by order of the committee of management. It is the only way the committee can be sure that each department is properly supplied with all the requisite material, and as a medical school is not a mere series of classes, but an institution in which several teachers combine to produce one definite result—the qualified medical practitioner—it is obviously just that the whole should bear the cost of each separate part.

The last point we have to mention is the apportionment of the balance after all charges have been met, and this naturally divides itself up into several details. Demonstrators and assistant teachers, tutors, and the executive officials of the school—treasurer, dean, and secretary—should be paid fixed stipends. The remainder should be divided into a given number of equal “shares,” which are then to be divided into two portions, one to be allotted to the didactic lecturers, the other to the clinical teachers, and this division is approximately in the proportion of three to two. The lecturers’ shares should be distributed according to the number of lectures given. A departure from this practice has of late years been introduced in the case of “pure scientists,” anatomists, or physiologists who do not practise medicine or surgery, and who devote all their time to the work of the school. It has become a common practice to pay such lecturers a fixed stipend instead of allowing them to share in the profits of the school. Such an arrangement is not to be commended; it is much better for every lecturer to be directly interested in the prosperity of the school, and not least a “pure” anatomist or “pure” physiologist. The shares set aside for clinical teaching are usually divided in equal proportions among the full physicians and surgeons, the assistant staff being entirely

unremunerated. And this in spite of the fact that a very important part of the clinical teaching in all hospitals is given in the out-patient department by the assistant staff. At first sight such an arrangement appears obviously unfair, and it is defended on two not very satisfactory grounds : first, that the clinical fees are so small a sum that if the whole hospital staff shared in them, the portion of each would be so small as not to act as any inducement to teach ; secondly, that as all the seniors have in turn been juniors, and all juniors by the efflux of time become seniors, the arrangement is practically fair ; that to alter it would be unjust to those seniors who having received nothing as juniors would have their fees lessened by having to share them with their juniors.

In answer to this it must be remembered that all "reforms" press hard upon "vested interests," and that "hard cases make bad law." It is manifestly right and for the benefit of all concerned that the reward of work, such as clinical teaching, should be as direct and speedy as possible, and not postponed to some future time, and even if the share of each is small it is very useful to a young man during the hard years of waiting for consulting practice. One other fact too must be borne in mind : the length of time a man endures the toil of a junior and the emolument of the senior are by no means proportionate or equal in different cases. In fact the longer a man works in the out-patient rooms the shorter time will he have charge of wards, and a difference of as much as ten, fifteen, or even twenty years in the time of service in the out-patient rooms is not uncommon in the case of colleagues starting about equally. In this case, as in others, "the labourer is worthy of his hire," and every effort should be made to apportion the students' fees equitably among all those who share in the arduous work of teaching.

But another grave difficulty presents itself in the case of members of a hospital staff who have no aptitude for teaching, or at any rate who devote no time or attention to it. Probably in all cases most of the clinical teaching, and the best, is done by three or four members out of a staff of twelve to twenty, and yet those who teach much and well receive no more, and those who teach little and badly receive no less. A remedy for this would be to allow a student to attach himself to some one or other physician or surgeon, and then to distribute the clinical fees in proportion to the size of each one's class. But it is generally felt that the healthy rivalry thus started would be in great danger of becoming a bone of contention, and that it might possibly degenerate into something

quite different. A successful and popular teacher in a medical school reaps other rewards than his clinical fees, and on the whole substantial justice is probably done.

In one respect, a reform in medical school finance is certainly needed, and would as certainly be beneficial in its results: it lies in greater publicity. The whole matter is usually involved in mystery, and secrecy leads to misconceptions of various kinds. On the one hand the profits are often grotesquely exaggerated, and the general public at any rate have little conception of the poor remuneration generally awarded to medical teaching. Then, again, this mystery favours the continuance of an unjust distribution of the fees—abuses flourish in the dark and pale before publicity! Why should not the students' fees be received by the hospital authorities, and the balance sheet of the school be prepared by the secretary of the hospital? It would add but slightly to the work of the hospital "office," and would relieve the dean and the treasurer of the school from an infinity of trouble. There is no sufficient reason known to us why the accounts of a medical school should be kept so secret as they are, and we believe that the first great step towards a more satisfactory system of finance is greater publicity. But our last word on this subject is to repeat what has been already shown, and what is abundantly proved by the evidence given before Lord Sandhurst's Committee of the House of Lords to inquire into metropolitan hospitals, &c., that with very few exceptions the lecturers and teachers in London medical schools are very inadequately remunerated.

Medical Education.—The most important fact to bear in mind in discussing the education of medical students is that medical practice rests on the twofold basis of science and empiricism. At one time medicine was an empirical art only, but the advance of anatomy, physiology, pathology, and chemistry has furnished an ever-widening scientific basis for it. Clinical observation has been conducted for generations, and by it an immense amount of valuable practical knowledge has been obtained. Advance in this direction must now be slight and slow, mainly dependent upon enlarged powers of observation such as are afforded by the use of instruments of precision, as the thermometer, or of new means of investigation, as the ophthalmoscope. It is in the other direction that advance is now to be sought, and the incalculable and wide-reaching effects of the discovery of the antiseptic system of wound-treatment is a striking instance of the vast importance to

medical practice of purely scientific knowledge. The great difficulty of medical education consists in the contemporaneous pursuit of these two opposite kinds of knowledge, the scientific and the empirical, and it is increased by the circumstance that the scientific basis of medicine is ever becoming wider and firmer. But both medicine and surgery are very far from being applied sciences, although science, proud of its progress and achievements, and confident in its methods, is apt to look with disdain upon the humbler methods pursued by clinical observers. To some minds the charm of the medical profession is in its scientific basis, to others in its empiricism, and in medical education the two opposing classes of mind and methods of study must be considered. Neither can say to the other, "I have no need of thee." When science has cleared away all the mists of ignorance that now surround almost every branch of medical knowledge, medical practice will still be an art to be acquired best by those who have a special aptitude for it, and even by them only after considerable effort. It is this combination of two opposite, as well as different, methods that constitutes the chief difficulty of medical education and practice.

It is not possible under existing circumstances to make every student of medicine an accomplished scientist, and scientific investigation and discovery will always be the privilege of a few, but none the less is it of the utmost importance that all medical studies should be approached from the scientific standpoint, and pursued as far as possible in the scientific method. At the same time great care should be taken to show the practical application of scientific facts in medical practice. Thus anatomy, the foundation of all medical knowledge, should be taught not as a series of disconnected dry details, but from a morphological standpoint, when it at once becomes of the deepest scientific interest, and at the same time the bearing of anatomical facts on function, on diagnosis, on pathology, and on treatment should be strongly indicated. And so through the whole range of the medical curriculum we might show that each branch of knowledge should be taught on a scientific method and with practical application. This last point is of importance, for, with the great development of every branch of natural science, it has rightly come about that some men have devoted themselves wholly to scientific pursuits; they have become more accomplished than their fellows who have also practised their profession, and in consequence they have in some cases been appointed teachers of medical students. While not questioning the

great value of the teaching of such men from the scientific standpoint, it is impossible not to see that they may fail on the side of the practical application of science to medicine, and that they are very liable to teach entirely "over the heads" of their class. Such men should lecture to the teachers rather than to the untrained students in our medical schools. A practising physician or surgeon will always be the most useful teacher of anatomy, physiology, chemistry, or pathology to medical students.

Coming to the individual studies of the medical student, there are some of them requiring a few comments. Anatomy we have already said should be studied from a morphological standpoint, and embryology should come in for a larger share of attention than it now receives. At the same time, surface anatomy should be more carefully taught. Dissection of the human body is undoubtedly the only way in which a sound knowledge of anatomy can be obtained, and diagrams and models, even the complex ones used in France, cannot replace it. This offers a grave difficulty in most medical schools, the supply of material for dissection falling far short of the legitimate demand. In the prevailing state of public feeling it seems hopeless to attempt to remove any of the barriers which have been reared to prevent a fair supply of "subjects" for dissection. But the public ought to realise the fact that their interests are closely bound up in this, for such a practical knowledge of anatomy as can be obtained only by dissection is indispensable alike for the physician and the surgeon. Something might be done with advantage by introducing the dissection of dogs, cats, and rabbits into medical schools. It would train men in manipulative dexterity, familiarise them with the general appearance and arrangement of parts and organs, and also give them a practical acquaintance with a little comparative anatomy.

Physiology needs to be studied practically as far as possible. Great attention has of late years been given to histology, and all medical students should acquire a good practical knowledge of the minute anatomy of the human body.

But more needs to be done to teach physiological chemistry—the chemistry of respiration, digestion, assimilation, and of the excretions. The existing state of the law and of public feeling in this country largely interferes with the thorough teaching of practical physiology, but a great deal can be done, and more time should be devoted to this work than is usually allotted to it.

Chemistry might with advantage be studied before a student enters his medical school. It forms a necessary part of a medical man's education, and a knowledge, both theoretical and practical, of inorganic chemistry should be insisted on as a preliminary to medical study proper. If this were so, the students in medical schools would be in a position at once to enter upon the study of physiological chemistry, and later on of pathological chemistry. The teaching of elementary chemistry in medical schools is a waste of valuable time, a serious tax upon the resources of a school, and is continued only because the authorities have not the courage to insist upon a more thorough and specially adapted course of preliminary education of medical students.

Only when the student has passed his examinations in anatomy and physiology, and completed that part of the curriculum devoted to these sciences, should he enter upon the study of medicine and surgery. These are taught partly in systematic lectures, and partly in practical and clinical courses, and the latter are the most important and the most difficult to conduct efficiently. Practical medicine and practical surgery can only be taught to small classes, as each student should himself practise under the eye of his teacher all the methods of examination and investigation, and all the manipulations described by him. Too much pains cannot be taken in the conduct of these classes, and no brilliance in lecturing or other powers of the teacher will compensate in any way for want of patience and thoroughness. The clinical teaching also must be methodical and practical. Brilliant and erudite clinical lectures no doubt have their value, but the best work is done by less showy daily work in the out-patient rooms and in the wards. Different methods are pursued by different teachers, but certain main points should always be kept in view. First of all, students must themselves be made to observe, and before—not after—their teacher, the latter merely corroborating or correcting the student. Secondly, the significance of each fact elicited by questioning or observation— anatomical, physiological, or pathological—should be insisted upon, and in that way a scientific diagnosis arrived at. Thirdly, the teaching should be simple, almost limited to the commonplaces of medicine and surgery. There is always a temptation both to teacher and pupil to elaborate too soon—not too much—and to forget that the essential condition of a good education is a sound knowledge of principles, a well-planned and solid foundation. Afterwards the building may be raised as high as possible.

Fourthly, there should be constant repetition. In the out-patient rooms clinical teaching is of necessity mainly limited to diagnosis and treatment. In the wards it can be more thorough, and particularly, care should be taken to make the students follow up the progress of the patients once seen ; this is why the offices of dresser and clerk to in-patients, the holders of which are compelled to register the daily course of events in a certain number of patients, are of the very highest importance in medical education. The clinical teaching should cover as wide a ground as possible. Thus, in addition to the cases usually met with in general hospitals, students should study the course of the infectious diseases, especially of the acute specific fevers in fever hospitals, and should observe cases of lunacy in the wards of a lunatic asylum.

And now we are brought face to face with the question of other "special" branches of medicine and surgery, whether they should be relegated to "special" hospitals or to "special" departments in "general" hospitals. The arguments in favour of special hospitals are mainly two: first, that in them so large a number of cases of disease of the same organ or part is brought under the notice of the staff that a knowledge of the natural history of these diseases and a skill in dealing with them are acquired that would otherwise be impossible—that they are, in fact, necessary for the most rapid advance in professional knowledge and practice. Secondly, that in them all the particular apparatus and appliances necessary for diagnosis and treatment can be obtained, while in general hospitals the claims on the funds are so great and so many that such expenses cannot be incurred. Without entering into the whole question of "special" hospitals, and limiting ourselves to the one aspect of them we are now dealing with—their educational value for medical students—we may say that "special" departments at general hospitals are quite as popular with and attractive to patients as separate "special" hospitals, and that no difficulty is found in securing the attendance of as many patients as are wanted for the instruction either of the physician or surgeon in charge, or of the students. In the second of the above arguments there is much less than appears. If we take, for instance, such "specialisms" as diseases of women, of children, of the eye, of the ear, of the skin, of the nose, and of the throat, the special expense of working the departments efficiently and without any stint is a mere bagatelle, except in the case of the additional nurses required in the care of children when in-

patients, and this is an expense always most readily met by the committees of hospitals. On the other hand there is much to be said in favour of having "special" departments in general hospitals. There is a great saving of time to the student, who finds his whole field of study within four walls. Then he is guarded against looking upon these "special" studies as in any way separated from general medicine or surgery—a very real danger when he finds them only studied quite apart from his general hospital. Again, it is more easy to enforce a student's attendance upon each of several separate clinics when they are all parts of one institution, than when they are separate and under different control. There are also other great incidental advantages. Diseases are not sharply delimited into various "specialities," and so it often happens that in a general hospital with members of the staff specially skilled and experienced in certain classes of affections, a general physician may get valuable help from a colleague skilled above the common in ophthalmic surgery, and often the ophthalmic or aural or laryngeal surgeon will be aided by the wider knowledge and experience of the general physician or surgeon. Indeed, the establishment of separate special hospitals can only be justified under very special circumstances, and is always to be regarded as unnatural—as a divorce.

The last step in medical education is the holding of a resident post in an hospital. Of necessity, this is an advantage that all students cannot enjoy; for those who can, it is the highest privilege. In no other way can such an insight be gained into the minutiae of medical practice on which success so largely depends. So true is this that it is rarely necessary to ask a practitioner whether he had formerly held one of these posts—his work shows it. It is therefore important to give every facility to men to hold these offices; their number should not be too restricted, nor the period of residence too prolonged. After holding one or more of such posts those who are able to do it may very profitably spend some months in visiting other hospitals, either at home or abroad; this will widen their knowledge and enable them to take a broader view than would be otherwise possible. We need not follow the student or practitioner further; many paths lie open before him, in each of which a useful life may be spent, especially if he never ceases to be a student.

In what we have hitherto said we have had in view the practice in the London and older provincial medical schools. We will now

notice the chief differences met with in other centres of medical education.

English Universities.—For some years Cambridge has had a large and very flourishing medical school, and more recently Oxford has followed her example. In each case extensive and well-equipped laboratories and dissecting-rooms have been built, and admirable facilities are afforded to the students to study chemistry, anatomy, and physiology. The local infirmaries are used for clinical instruction, but are not large enough for important medical schools, and the students find it best to complete their education in London. Such an education combines great advantages, and will probably become more and more popular.

The Scotch Universities.—These have long been great centres of medical education, and the University of Edinburgh is by far the largest medical school in the kingdom. The classes are very large, and difficulty is experienced in the clinical instruction of so many men. What is known as the 'Edinburgh' plan of clinical teaching, in which a patient is taken before a large class of students, and the lecturer himself demonstrates and discusses the features of the case, is a bad substitute for the more laborious plan of teaching followed in the best London schools. This plan is still followed on the surgical side. The disproportion between the number of students and the patients is a grave defect in Edinburgh, and prevents the dressers and clerks having a sufficient number of patients to observe closely from day to day. The connection of the Scotch medical schools with a degree-giving university has been of advantage to the students, and has put the degrees of Bachelor and Doctor of Medicine within their reach. The proposed Gresham University in London is in part an attempt to give similar facilities to London students, and the Victoria University already does this for the students at Liverpool, Manchester, and Leeds.

In addition to Edinburgh, Glasgow and Aberdeen are important centres of medical education.

The Irish Medical Schools.—The centres for medical education in Ireland are Dublin, Cork, Galway, and Belfast. The Dublin schools have long been famous, and they may be taken as the type of the Irish medical schools. There are several distinct schools in Dublin which are all quite apart from the hospitals; two of them are departments of the University of Dublin and the Royal University. All the didactic lectures are given at these schools, and the students can take out their clinical practice at one or other of

several hospitals. No one hospital is specially affiliated with any particular medical school, with the exception of Sir Patrick Dun's Hospital, which is specially connected with the University of Dublin.

The curriculum extends over four years, and its scope closely resembles that of the English curricula, and the examinations are similar in number and range to those in England. But it is not compulsory for the Irish student to hold either a dressership or a clerkship, and, in fact, a good many of them do not. Somewhat in place of that there is a system of resident pupils, who are elected by examination from students in their second, third, and fourth years, and who live in the hospital and take a very active share in the clinical work of the wards. Great attention is paid to the study of anatomy; the dissecting-rooms are good, the supply of "subjects" is abundant, and the students themselves dissect during three winter sessions. In addition to the ordinary anatomical examinations in some cases one or even two papers in anatomy are set in the final examination. Some students are exempted from the third winter's dissections, but they have to take out a third course of lectures on anatomy.

With the exception of the *Mater Misericordiæ*, which has over 300 beds, the hospitals of Dublin are small, each containing ninety beds or so, and are too small for clinical purposes. The Rotunda Lying-in Hospital is a splendid field for the education of students in midwifery and gynecology, and the opportunities it affords are so valued that many students besides those of the Dublin schools are found among its intern and extern pupils.

In place of the system of composition fees popular in England, the Irish student pays separately for each class or course taken out, and the fees for hospital practice are quite distinct from the general school fees, and are paid at the individual hospitals. By this plan a student can be connected with more than one school, can supplement the instruction given in one with special classes at another and can follow the practice and clinical teaching at more than one hospital. This enables a student to obtain a very good professional education.

Medical diplomas and degrees in Ireland are given by the conjoint board in Dublin, Trinity College Dublin, and by the Royal University.

FRANCE.

Paris is the great French medical centre, and next to it come Lyons and Montpellier. In Paris there is one great medical school, *L'École de Médecine*, under Government control. The students are taught by professors who are elected after public competition, and who devote the utmost attention to their lectures and bring the art of lecturing to a high degree of perfection. The student does not select the hospital at which he will study, but is told off to particular hospitals by the central authority. All appointments in the school and the hospitals are won by public competition; this is the great feature of the French system. The result is a body of teachers of great eminence, not only as scientists and practitioners, but as lecturers. The scientific and didactic parts of medical education are extremely well provided for; the clinical and practical parts are not so good as they ought to be.

FRENCH HOSPITALS IN THEIR RELATION TO MEDICAL TRAINING.

One of the points which most impresses the observer who makes a study of the French hospitals is the relations between these hospitals and the teaching of medical science.

While in Germany, and more especially in England, the great hospitals organise medical schools, to which students are only admitted upon payment of a more or less high tuition fee, the hospitals of Paris provide the faculty of medicine free of charge with all the necessary elements, such as museums, lecture-rooms, premises for clinical and laboratory work, dissecting-rooms, and so forth. The hospital administration goes farther still: it gives appointments to its physicians and surgeons, a quite exceptional proceeding in England; and it gives a salary to the professor of the anatomical school at Clamart, to the prosectors, and to a large staff whose duties are educational only.

METHOD OF ELECTION OF THE MEDICAL AND SURGICAL STAFF.

Although the medical staff of the hospitals is intended rather for the treatment of the sick than for educational purposes, it must

be remembered that each hospital physician is also a clinical professor, and that his resident pupils serve as his dressers.

The physicians and surgeons are recruited by competitive examination of so severe a nature that the candidates can only pass after their sixth or seventh attempt, thus presupposing ten or fifteen years' study and continuous work after taking their doctor's degree, together with uninterrupted residence in the hospitals. There are scarcely two or three vacancies every year, and for these some fifty or sixty physicians and surgeons compete. Once admitted to the central board, the physician or surgeon sets out upon a career of which he must take every step in accordance with a hierarchical rule which is religiously observed and which gives an indisputable advantage to seniority in service. It is owing to this organisation that the special studies pursued by eminent doctors have made the French services so famous, and have led to the clinical courses being attended so eagerly by several generations of students. It will be sufficient to quote the names of Pinel, Esquirol, Fabiet, Lefranc, Lugol, Michon, Rayet, Martin-Solon, Blache Civiale, and so on among those who have lectured in the hospital without holding any official appointment, and among those of the hospital staff whom the faculty has selected for clinical professorships, Chomel, Rostan, Cruveilhier, Grissolle, Trousseau, Marjolin, Blandin, Laugier, Jobert de Lamballe, Malgaigne, and others, only to mention those who are now dead.

The physicians and surgeons of the hospitals of Paris and all the large towns of France are selected by competitive examination after practical scientific tests lasting several weeks. Their annual salary varies from £40 to £48. They practise up to the age of 65 if physicians and 60 if surgeons.

RESIDENT AND NON-RESIDENT MEDICAL STUDENTS.

Independently of the physicians and surgeons whose mode of appointment and whose salaries we have just described, the hospital administration employs the services of a considerable number of medical students who receive a small salary. The following are the conditions for the admission of non-resident pupils :—

A. Out-Studentships.

Art. 101.—Every student offering himself for examination for the post of out-student must be eighteen years of age at least and

twenty-six at most. Students, however, who attain the age of twenty-six before the expiration of their duties may, if their conduct has given rise to no complaint, be authorised to compete afresh for the out-studentship, and if the issue of the examination is favourable to them they may be retained in their out-student duties until the age of twenty-eight so as to preserve their privilege of offering themselves for examination for the in-studentship up to the limit of age fixed by the regulation. He must produce : (1) his certificate of birth ; (2) a certificate of revaccination ; (3) a certificate of good behaviour and character given by the mayor of the commune in which he is domiciled ; and (4) a certificate of one term at least kept at one of the faculties of medicine. Nevertheless students presenting themselves without being able to produce this last certificate may be registered provisionally, upon condition of keeping one term before the closing of the examination.

Art. 102.—Non-resident students admitted upon examination alone have the right to apply for the post of resident students. They must not be more than twenty-eight years of age. They can only be registered for examination upon production of the following documents : (1) a certificate declaring their service as out-student since the preceding January at least, without any interruption for which no reason is assigned ; (2) certificates given by the physicians or surgeons and by the directors of the institution in which they have served as out-students, testifying their accuracy, subordination, and good behaviour.

Art. 9.—The tests in the examination for out-studentships are as follows : (1) an oral test upon some point of descriptive anatomy ; each candidate will be allowed five minutes for explaining the point after five minutes' consideration ; and (2) a second oral test upon some point of elementary pathology or minor surgery. Each candidate will likewise be allowed five minutes for dealing with this question after five minutes' consideration. The maximum number of marks allowed for each of these tests is fixed at twenty.

B. Articles referring to Resident Students in Medicine and Surgery.

Art. 112.—The examination tests for in-studentships are regulated as follows : (1) a qualification examination, consisting of a written composition upon anatomy and pathology, for which two hours will be allowed ; and (2) a *viva-voce* examination in the same subjects ; candidates will be allowed ten minutes to elucidate

the questions propounded after ten minutes' consideration. The maximum number of marks to be given for each of these tests is thirty for the written composition and twenty for the *vivâ-voce*. Upon the conclusion of these transactions the examiners proceed to class the candidates.

SALARY OF THE RESIDENT AND NON-RESIDENT STUDENTS.

Resident Students.

Since the 1st of January, 1882, as the result of a motion of M. Bourneville adopted by the municipal council, the remuneration has been as follows: First year, £24; second year, £28; third year, £32; and fourth year, £40. As a general rule the in-students are given lodging, but if not they receive an indemnity of £24. In 1888 the number of vacancies was 46; of candidates 320; and of exercises rejected about 300.

Non-resident Students.

(1) In the so-called central hospitals, viz. the Charité, Clinique, Hôtel-Dieu, and Pitié, the out-students receive no remuneration; (2) in the semi-eccentric hospitals, such as the Necker, Enfants-Malades, Cochin, and so forth, they draw £12 per annum in each service; (3) in the eccentric hospitals, viz. Beaujon, Lariboisière, St. Antoine, Trousseau, St. Louis, and so on, they receive a daily remuneration of 9*d*. At the Maison de Santé, the out-students in each service have a joint salary of £12 a year, and in addition an annual salary of £12 each. Finally at the Tenon, Bichat, and other hospitals, in consideration of the great distance at which the hospitals are situated, the out-students receive an exceptional remuneration of £2 a month.

CLINICS IN HOSPITALS.

Independently of the ordinary medical and surgical services, which, as we have already said, are really clinical courses attended by an always considerable number of student licentiates, there are eight official clinics, the professors of which are appointed by the medical faculty, and for which the State provides the salaries. If, however, the administration does not provide the professors' salaries, it retains the expense of building and maintaining the

premises necessary for this instruction. These clinical professorships are as follows: Four medical and four surgical clinical professorships distributed among the Hôtel-Dieu, Charité, Pitié, and Necker. There are also eight special clinical professorships, viz.: (1) Professorship of syphilitic and cutaneous diseases at the St. Louis Hospital; (2) ophthalmological professorship at the Hôtel-Dieu; (3) professorship of diseases of the urinary passages at the Necker; (4) professorship of nervous diseases at La Salpêtrière; (5) professorship of diseases of children, at the Children's Hospital; (6) professorship of mental diseases at Ste. Anne; (7) midwifery clinic at the Maternity Hospital; and (8) a midwifery clinic at the Clinical Hospital.

This installation of clinical professorships was effected by the Assistance Publique, subject to the following conditions:—

(1) The professors shall be selected only from among the medical and surgical staff of the hospitals.

(2) Appointments of new clinical professors shall never be made at the sacrifice of the rights of seniority of heads of services, and shall always be subordinate to the rotation usual among them since their admission to the hospitals by competitive examination.

(3) The number of beds appropriated to clinics shall in no instance exceed from thirty to fifty, in conformity with the Ministerial Decree dated the 3rd of July, 1824.

(4) The incumbents of the professorships of complementary clinics, like all the other members of the hospital medical staff, shall continue to be subject to the regulations governing the hospital service even in respect of the hour and regularity of the visits to be paid to patients, and of the limit of age imposed upon the physicians and surgeons of the hospitals and almshouses.

(5) The warrant of the general board of the Assistance Publique shall be given for a limited time, which may be prolonged, but must in every case be made subordinate to the terms of organisation and existence of the hospital establishments. As a consequence, the clinical courses must be transferred or even cease to exist when the terms of organisation and existence require it, or when the faculty of medicine shall be in a position to provide for them itself in institutions which may be placed at its disposal otherwise than by the general board of the Assistance Publique.

(6) The framing of regulations and matters of police in institutions in which there are clinical courses shall be exclusively in the hands of the hospital administration.

GERMANY.

The medical schools are all of them faculties or departments of universities, and these are all Government institutions, the professors being appointed and paid by the Government, and the Emperor is the rector. The universities are numerous, some of them being in quite small towns, but even then the buildings are ample and well fitted with all the necessary appliances. Great care is taken to provide laboratories at which the students can work practically at such sciences as anatomy, physiology, chemistry, and pathology, and original scientific research is encouraged. Certain hospitals are officially connected with the universities for the purpose of clinical teaching, and certificates from these hospitals only are accepted.

Before matriculating or entering at the university the student must produce evidence of having passed the *Arbiturienten-Examen*, which is a severe preliminary test and demands a good knowledge of Latin, Greek, English, and French, and an elementary knowledge of science. Two years after entry the first medical examination—the *Testamen Philosophicum*—is passed; this includes chemistry, physics, botany, and zoology. At the end of the five-years' curriculum the student goes in for the *Examen Rigorosum*, on passing which he obtains the degree of M.D. and then after that he goes in for the *State Examination*, on passing which he is allowed to practise. All the medical examinations are conducted by the professors of the university. The State examination is purely practical; it includes all branches of medical study, and is very thorough. The curriculum extends over five years and is very like that followed in Great Britain. Lectures play a great part in the teaching. In the hospitals the clinical teaching is mainly by lectures. The students go in a large class into the wards with the professor, who examines the patient before the class, and then discusses the diagnosis and treatment. There is no system of dresserships and clerkships as in England.

The fees are charged for each separate course of lectures, and as each university recognises the courses given in any other German university, it follows that students go first to one and then to another university, drawn by one and another famous teacher.

The professors are paid large stipends, and have to devote a large share of their time to the work of the school. The chief

schools in Germany are at Berlin, Heidelberg, Göttingen, Leipzig, Griefswald, Erlangen, Jena, Bonn, Rostock, and Tübingen.

AUSTRIA.

The Austrian medical schools, like the German, are faculties of Government universities. The general arrangement of them closely resembles that found in Germany. The most important Austrian schools are at Vienna, Munich, Halle, and Prague. The Vienna Krankenhaus is an unexampled field for medical research, and for that reason large numbers of doctors from the United States and parts of Europe flock to it. This institution is a series of hospitals. It affords admirable short courses (six weeks) of lectures, and demonstrations are given by the professors and their assistants, which are extremely useful where a man desires to acquire facility in any method of examination or skill in the use of any instrument, like the laryngoscope, or to see in a short space of time a large number of cases of a given class.

SWITZERLAND.

Each of the five universities of Zurich, Bâle, Berne, Geneva, and Lausanne has a medical faculty or medical school, and these, with the associated hospitals, are the only institutions for medical teaching. The professors are highly paid, and devote a very large part of their time to the work of teaching: in this and many other respects the Swiss schools closely resemble the German.

Before a student can enter for medical courses proper he must have passed the examinations for the *Baccalauréat ès Lettres* and the *Baccalauréat ès Sciences Physiques et Naturelles*. These include the Latin, Greek, French and German languages, history, geography, philosophy, mathematics, astronomy, physics, chemistry, geology, botany, zoology, palæontology, and human anatomy and physiology.

After two years in the medical school the student should pass the examination for the *Baccalauréat ès Sciences Médicales*, which includes experimental physics, chemistry—inorganic, organic, and physiological—botany, zoology, comparative anatomy and embryology, histology, human anatomy, and physiology.

After the full curriculum of four years the students are examined

by a State commission composed partly of professors of the university, and partly of federal examiners who may or may not be connected with medical teaching. If successful a license to practise medicine is now granted. Subsequently to this many men obtain the degree of M.D. from their university on sending in a thesis. The State or qualifying examination lasts six weeks, and is very thorough and searching. It embraces all parts of medicine and surgery, including, for instance, the diseases of children, ophthalmic surgery, and insanity. It is thoroughly practical in character throughout, candidates having, for example, to perform operations on the dead body, make *post-mortem* examinations, and so forth. The examination is conducted in French or German.

The fees for medical teaching are small, and each class is paid for separately. Each student has a little book which each professor signs at the beginning and at the end of each session, appending at the same time comments as to industry or idleness when necessary. By this means the students are kept well up to their work. The clinical teaching is well done, and great attention is paid to individual students. After their first year of hospital attendance, the students are allotted particular cases in the wards. Attendance in the wards of a lunatic asylum during one session is compulsory. Attendance upon the medical classes of German universities is recognised for the university and State examinations.

DENMARK.

The medical school is at Copenhagen, and is part of the university controlled and supported by the Government. The plan followed is very similar to that adopted in Germany.

SPAIN.

Spanish medical schools are closely connected with a body called the Protomedicato, which dates from the sixteenth or perhaps even the fifteenth century.

At the present time there are medical faculties attached to eight out of the ten provincial universities of Spain, viz. Barcelona, Granada, Madrid, Santiago, Valladolid, Valencia, Seville (at Cadiz), and Saragossa; and there is also some clinical teaching at Seville

and Salamanca, supported by provincial and municipal funds. Residential colleges are attached to each of these schools. As showing the active interest taken by the Ministry of Fomento in medical education, it may be mentioned that the minister, finding the facilities for clinical teaching inefficient, decided to erect in connection with the General Hospital an independent clinical hospital of 150 beds. The curriculum is a very full one, covering the same ground as others in Europe.

PORTUGAL.

There are three medical schools in Portugal: the medical faculty of the University of Coimbra, and the medical and surgical schools of Lisbon and Oporto. The Lisbon school is connected with the Hospital of San José.

The entire curriculum extends over eight years, and includes the study of physics, chemistry, zoology, botany, geometry, and algebra; and also of the sciences and arts more closely and specially connected with the practice of medicine and surgery. After four years of study, students can graduate as Bachelors of Medicine, but before taking the degree of Doctor of Medicine they have to repeat certain courses of study already taken and to take up some additional ones.

SWEDEN.

There are medical schools in connection with the Seraphim Hospital and the hospitals of Upsala and Lund—the two Universities of Sweden.

TURKEY.

A medical and a clinical school were founded by Soliman the Magnificent, who erected buildings for them near his own mosque in Constantinople. These buildings are now used as schools for general instruction. There are at the present time two schools connected with two hospitals at Stamboul. One of them is a military school only, and the students attend the practice of the Gul Kaneh Hospital, containing 100 beds. The other is the civil school, and is attached to a hospital containing fifty beds; it is under the direction and control of the Ministry of Public Instruction.

INDIAN MEDICAL SCHOOLS.

The fifteen medical schools play a very important part in the economy of the Indian Government. The successful working of the civil and military hospitals is to a large extent dependent upon the training these schools afford to the Anglo-Indians, Eurasians, and natives who attend them. They are also a means of scattering through the Indian Empire a number of natives who are more or less well acquainted with the English language and with western civilisation and science. This is a great power for good, which is all the greater because of the high reverence in which the masses of India hold those who practise the healing art. The medical profession also offers a capital outlet for the better educated native youths, and in this way it renders excellent service to the State.

The medical service of India is a special Government department and consists of the surgeon-general, civil surgeons, and the subordinate medical service—assistant surgeons and hospital assistants. The dispensaries, which are scattered broadcast through the land, are principally manned by hospital assistants, but it is felt that such institutions require the services of regularly trained and skilful medical men, and assistant surgeons are now being appointed to them.

The medical schools are all under Government control. They were founded to give a systematic training to the members of the subordinate medical service, who do a large share of the work in all the hospitals as well as the dispensaries.

These pupils entered at about fifteen years of age, and the course of study was intended to last two years, but was generally shortened by about six months to meet the demands of the service. The number of pupils was regulated by the supposed requirements of the Government. The cost of their education was defrayed by the local or provincial governments. The teaching staff was always headed by an English medical man, usually one connected with the military medical service, assisted by a mixed body of English and Eurasian medical men of various grades. The Madras Medical College, founded in 1835, was one of the earliest attempts to supply this want, and its history, with its many alterations and its splendid development, its difficulties and the success with which it has overcome them, may be taken as a fair example of all. Since these

early days great improvements have been effected, and the results of the efforts that have been made are most satisfactory. On the one hand the standard and scope of the education given have been so improved that now a complete and sound medical education can be obtained in India, and the courses of the chief schools, such as those of Calcutta, Bombay, and Madras, are accepted by the conjoint examining board in England, and other British examining bodies. By this means the higher branches of the profession have been opened to the natives of India, and as a result larger numbers of students attend the schools, and such as are both able and willing to pay for their education. So that in this most important respect the schools have undergone a great change: at one time wholly eleemosynary they are now largely conducted on commercial lines.

The medical colleges of Calcutta, Madras, and Bombay have a full staff of professors, and give a complete medical education to graduates, as well as special classes for apothecaries. The twelve other schools afford a good but lower scale of education, extending over three years: at these schools there are a superintendent and teacher of medicine and therapeutics, a teacher of surgery and midwifery, a teacher of anatomy and physiology, and a teacher of chemistry and medical jurisprudence. They are all provided with a lecture theatre, a dissecting room, a students' reading room, a nucleus of a museum, and in some places with students' quarters. Hindoos, Mohammedans, Parsees, Eurasians—in fact, all classes—are received at the Indian medical schools.

Two circumstances have injuriously affected Indian medical schools. One is the necessity of using the English language in them. The students often come up but imperfectly acquainted with English, and unable to profit as much as they otherwise would by the lectures and demonstrations they attend and the text-books they read. Of late years attempts have been made to overcome this difficulty, and classes are now held in the vernacular in some schools. The fact, also, that the examination for commissions in the Indian Medical Service is held in England deters many natives from competing for them. They cannot afford the costly journey to Europe, especially as success at the examination is by no means certain.

The following table shows the various schools and the number of students attending, according to the most recent available reports:—

Provinces.	Institutions.	Number of Students.	
		Male.	Female.
Bengal ...	Calcutta Medical College	227	24
" ...	Calcutta Campbell School	220	14
" ...	Dacca	205	0
" ...	Patna Temple School	121	0
" ...	Cuttack	53	5
Madras ...	Madras Medical College	344	39
" ...	Madras Medical School	177	9
" ...	Nellore	17	0
" ...	Tanjore	31	0
Bombay ...	Grant Medical College	182	33
" ...	Poona	43	4
" ...	Ahmedabad	70	0
" ...	Hyderabad, Sind	31	0
North-West Provinces	Agra	182	33
Punjab ...	Lahore	254	19
Totals ...	15 institutions	2,157	180

BOMBAY.

There are four medical schools in the Bombay Presidency ; the most important of these is—

The Grant Medical College in Bombay, which is in connection with the Jamsetji Jeejeebhoy Hospital. Here there is a full staff of professors on the same basis as a London medical school. The lectures are recognised for the licentiatehip of medicine and surgery and for the degree of M.D. of the University of Bombay, and by the examining board in England. The number of male students is 182. There is also a class of 33 female students. There is a separate class for military medical pupils, who, when qualified, are attached to the army. The students have this school well equipped for medical practice. Some of them go to London or Edinburgh to take a British diploma and gain a wider experience in medical work.

The three other medical schools train men for Government employment in the subordinate medical department. Some of the students pay, but many of them receive allowances from Government during their student days. These schools are all in connection with the civil hospitals. At *Poona*, at the time of the latest return,

forty-seven pupils were in attendance. Of 105 candidates who applied for admission to the school in 1889, six were granted stipends, ten were taken on as military pupils, and twenty others as paying pupils. At *Ahmedabad* there were seventy students; and at *Hyderabad* there were thirty-one. The students who do not pass their annual examinations may be put back for a year or dismissed.

Each of these three schools is conducted by a principal, assisted by three teachers selected from assistant surgeons in the Government service.

AGRA.

The school for the North-West Provinces is at Agra. Its staff of teachers and general arrangements are similar to those found in the other second-grade schools. It has classes for female as well as male students, and at the time of the latest return there were 182 men and 33 women in attendance as students.

LAHORE.

The medical school for the Punjab is at Lahore, and is attached to the Mayo Hospital: it is called the Lahore Medical School. It was instituted in 1860 for the training of assistant surgeons, hospital assistants, native midwives, and nurses. The staff of the school consists of a principal, three other European professors, and five native lecturers. It has a system of separate classes: the English class, and the Hindustani class. In the year 1885 the principal, Dr. Brown, was also professor of medicine, physiology, and botany; Professor Center taught midwifery and forensic medicine; Mr. Lawrie was professor of anatomy and surgery, and Mr. Young was professor of chemistry and *materia medica*. The native lecturers taught the same subjects to the Hindustani classes.

The first or English class consists of Government students, local fund students, and civil medical pupils. The Government students must have passed the entrance examination of the Calcutta University or of the Punjab University, taking Urdu or Persian as one of their subjects. Scholarships varying from Rs. 6 to Rs. 15 a month are given to selected candidates; the others are admitted as free students, and are eligible to compete for the Government scholarships at any subsequent examination of the medical students. These scholarships are held for a year

only, and at the end of each medical year they are redistributed according to the results of the annual examinations. They may be forfeited or diminished in consequence of idleness or misconduct. The Punjab Government gives each year five appointments of assistant surgeons to the five best students from the Punjab, and the North-West Provinces Government gives three similar appointments to the three best students from the North-West Provinces.

At the end of the third winter session the students are required to pass the first examination in medicine of the Punjab University, and in April of the fifth year the final examination. Fifteen local students are admitted to the English class. From the local funds of their districts a contribution of Rs. 15 per month is paid to the principal of the school for each student. Out of this fund the students are paid according to their merits. They have to pass the entrance examination of the Punjab University, and they are eligible to compete for Government scholarships and appointments.

The civil medical class consists of students who have some knowledge of English, and they are selected every year by competitive examination. They receive scholarships averaging Rs. 9 a month, and these are adjusted every April. At the end of two years they are examined in anatomy, chemistry, materia medica, and physiology; and at the end of the fourth year in surgery, medicine, medical jurisprudence, and midwifery. Those who pass and are physically fit are admitted to the rank of civil hospital assistants.

A limited number of females, between the ages of fifteen and twenty-five, are admitted into the civil medical pupil division of the English class, and three local funds give one scholarship each to female candidates willing to serve in their respective districts. The women have the same education and examinations as the men.

BENGAL.

Calcutta.—The Medical School of Calcutta is in connection with the Medical College Hospital. It trains native students for Government employment, and many educated here are drafted off to Burmah.

At *Patna* the students are mostly Beharees; they are taught in the vernacular. The school is for the training of hospital assistants and is supported by the Government.

At *Dacca* there is a similar vernacular medical school. The *Orissa Medical School* connected with the *Cuttack* General Hospital is another vernacular college.

MADRAS.

The *Madras Medical College* was founded in 1835 in connection with the Madras General Hospital. In its earlier days it was a training school for the subordinate medical officers only, the curriculum lasted only two years, and the teaching, which included only materia medica, anatomy, medicine, and surgery, was conducted by two teachers and two assistants. The students then were all in receipt of stipends from the Government. During the last fifty years many and great changes have been effected. The buildings have been enlarged, the staff of teachers has been greatly increased, the curriculum has been lengthened and its scope widened, and a better class of students has been attracted—men able and willing to pay for their education. At the present time the medical school is a collegiate institution of university rank, well equipped in all departments, with a staff of fourteen professors and lecturers and four assistants. The male students number 344, and the female class is 39: thus it is much the largest medical school in India. The instruction given enables the students not only to take the Licentiate in Medicine and Surgery, but the degrees of M.B., C.M., and M.D. of the University of Madras, and it qualifies them for British diplomas. Several of its best students have completed their studies in Europe. The cost of the journey and the expense of residence in England are a serious bar to many who would otherwise gladly avail themselves of this privilege.

The *Madras Medical School* is another large school, with 186 students in attendance, 9 of whom are women. In the same Presidency are two other vernacular schools for the education of apothecaries, one at *Tanjore*, with 31 pupils, and another at *Nellore*, with 17 pupils.

AUSTRALIA.

MELBOURNE.

The Melbourne University has a good and increasing medical department, which is well provided with suitable buildings and plant, which have been recently erected on the most improved

principles. The lectures to medical students (of whom there are about 200) are all delivered at the university, except, of course, the clinical lectures. The lecturers are all appointed by the council of the university. Clinical instruction is given at the Melbourne Hospital or at the Alfred Hospital; most of the students go to the former, which is the larger institution and which is within fifteen minutes' walk of the university. These hospitals are quite independent of the university, and a position on their staff does not carry with it any position in the university or *vice versa*. The fees for hospital practice at these hospitals are all paid through the university. Clinical teaching is also given at the Children's Hospital and at the Eye and Ear Hospital, on payment of special fees.

The matriculation examination includes six subjects. The medical curriculum extends over five years, and there is an examination each year: the students all study anatomy and dissect for three years. The examinations are as follows:—

- (1) Physics, chemistry, and biology.
- (2) Junior anatomy, materia medica, and physiological chemistry.
- (3) Senior anatomy and physiology.
- (4) Pathology, therapeutics, dietetics, hygiene, and regional anatomy.
- (5) Medicine, surgery, midwifery, gynecology, pediatrics, and forensic medicine.

In their second year students attend the surgical out-patient department of the hospital, in the third year the medical out-patient department, and in their fourth and fifth years the in-patient departments.

At the end of the five years the successful students graduate as M.B. and B.S.; the degrees of M.D. and M.S. are granted after further study and examination. The lecturer in each subject is assisted at the examinations by two external examiners who may or may not be lecturers at the university or on the staff of the Melbourne or Alfred Hospitals. The standard of the examinations is such that many students fail to pass them, and come over and take a diploma in Europe—generally in Edinburgh.

There are residential colleges in connection with the University.

ADELAIDE.

The medical school of the Adelaide University is very similar to its sister in Melbourne. All the teaching, except the clinical, is done at the university; the clinical work is all done at the Adelaide Hospital, which is an entirely distinct institution. The school buildings are good, the teaching thorough, and the clinical material abundant. The curriculum extends over five years, and there are five annual examinations, the standard of which is high: those who pass receive the degrees of M.B. and B.S. At present the number of students in attendance is less than at Melbourne.

NEW ZEALAND.

The medical school of the University of New Zealand is at Dunedin in Otago. The school buildings are modern, and contain a good dissecting room and physiological laboratory. There is a special preliminary medical examination which is more difficult than the matriculation of the university. The curriculum extends over five years, and there are four examinations as follows:—

- (1) Biology, physics, inorganic chemistry.
- (2) Anatomy, chemistry.
- (3) Physiology, pathology, and materia medica.
- (4) Surgery, medicine, midwifery, gynecology, forensic medicine, and hygiene.

The clinical work is done at the Dunedin Hospital, which is quite separate from the university, except that medical lecturers at the university are *ex officio* members of the staff of the hospital. In this and in many other details the arrangements of this school are modelled after those of the Edinburgh University Medical School, and there is a close connection between the two schools, so that students after two years' work at Dunedin often complete their curriculum and graduate at Edinburgh.

THE UNITED STATES OF AMERICA.

In the United States the hospitals and the medical schools are, as a rule, entirely distinct corporations with separate pecuniary interests and under the management of separate boards of trustees.

One hospital may even afford clinical instruction to the students of more than one distinct medical school, as is the case in the Bellevue Hospital of New York. A few schools have established hospitals of their own to secure the means of giving clinical teaching to their own pupils. The hospital of the University of Pennsylvania in Philadelphia is a good example of this. The Johns Hopkins Hospital in Baltimore, is, by the direction of its founder, to form a part of the medical department of the university of that name when founded. But the hospital and the university are founded and supported by distinct endowments, and they are managed by separate boards of trustees. The majority of the trustees of each board are common to the two in order that the two institutions may co-operate harmoniously ; but there are so many trustees, members of one board only, that the fusion of the hospital and the university is impossible, and all plans for conjoint action are certain to receive careful scrutiny from the point of view of the hospital as well as of the university. In Boston the hospitals have no direct relation with the Harvard Medical School ; a lecturer at the school may be unable to obtain an appointment on the staff of the hospital, and physicians and surgeons may be appointed at the hospital who are not connected with the university. The hospital authorities, therefore, have considerable control over the *personnel* of the medical faculty so far as the clinical teachers are concerned.

The number of medical schools in the United States is very large, and they are degree-giving as well as educational institutions, uncontrolled by any central authority. The influence of competition is therefore strongly felt. Hitherto the curriculum in the great majority of the schools has been two academical years of about six months each, and the lectures each year have been substantially the same. At the end of this time the student is examined by his own teachers only, and if he satisfies them he receives the degree of M.D. It has been found very difficult to improve this too short and imperfect course of study, but the leading American schools now require three years of study and a graded course. The third year is mainly devoted to clinical work. The more important schools are even arranging for a four-years' curriculum. The education has been mainly deficient, hitherto, on the clinical side ; didactic lectures and "quiz" classes have been held in abundance, but the clinical teaching has been mainly done in large amphitheatres, and the individual work of students in the out-patient rooms and the wards has been wanting. These deficiencies, however, are in the course

of being made good. In several of the large cities, post-graduate schools have recently been established and are carried out with great vigour. The men attending these classes devote themselves almost entirely to clinical and practical work in the hospitals.

Several of the best medical schools, such as the Johns Hopkins, the University of Pennsylvania, and the Bellevue, have recently built and fitted out capital laboratories for physiological, pathological, and bacteriological research. The other first-class schools are taking steps to provide for these branches of investigation and education. At present the schools are not well provided with museums, but most of the larger hospitals are collecting pathological specimens, and it is but a work of time for these to develop into first-class museums. The New York Hospital has already a good museum, and the Wood Museum at Bellevue Hospital contains a large number of valuable specimens. This is the property of the City of New York, to which the greater part of the collection was left by the late Dr. James R. Wood.

THE ARGENTINE REPUBLIC.

A State school of medicine is connected with the De Clinicas hospital: the school buildings are a handsome structure just opposite the hospital. The medical staff of the hospital do the clinical teaching and are professors of the school of medicine. They are chosen from among the most distinguished graduates of the school who, in addition to work at home, have studied abroad in Paris, Berlin, or Vienna. Clinical instruction is also given at the Rivadavia Hospital, and at lazarettos.

The medical curriculum proper extends over six years, and embraces a study of anatomy, physiology, chemistry, pathology, medicine, surgery, and midwifery in all their branches. It is divided into the theoretical and the practical parts, and the teaching is very thorough. The examination of the students is conducted in public, in the Spanish language. Foreign medical men are only allowed to practise in Argentina on passing the same examination, and they are only admitted to the examination on producing their diploma properly attested by the Argentine consul in the country from which they have come.

BRAZIL.

There are two schools of medicine in Brazil, in Rio de Janeiro and Bahia dos Todos Santos. The course of study lasts six years, and in addition to careful clinical instruction in the hospitals, the students have to attend classes in physics, chemistry, mineralogy, botany, zoology, anatomy, physiology, pathology, both general surgical and medical, medicine, surgery, obstetrics, gynecology, topographical anatomy, operative surgery, materia medica, therapeutics, forensic medicine, toxicology, hygiene, pharmacy, and the history of medicine. Thus, the curriculum is a larger and more comprehensive one than that in force in Great Britain.





CHAPTER XXXIV.

PAY HOSPITALS AND PAYING WARDS.—CONVALESCENT HOMES.



THE practice of taking payments from hospital patients has long prevailed in European countries. In the United States of America, owing largely to the absence of endowments, paying patients have formed a feature of the hospital system from the earliest times. In England this system was unknown until the establishment of cottage hospitals in 1859, by Mr. Albert Napper, F.R.C.S., on the basis of accepting some payment—not less than 2s. 6d. a week—from every in-patient. There are now many hundreds of cottage hospitals in the United Kingdom which have derived on an average twelve per cent. of their income from patients' payments. Up to 1877 the pay system, so far as the large English hospitals were concerned, was unknown, and when a movement was developed to establish Home and Pay Hospitals on a self-supporting basis great opposition was displayed and much difficulty experienced by the promoters. At that time there were very few institutions which accepted pay patients, and these few only received about one per cent. out of their total revenue from this source. It was maintained that the voluntary hospitals would be prejudiced if they admitted pay patients, and that the establishment of a Home Hospital for the accommodation of pay patients alone would result in utter failure financially. Notwithstanding this opposition the Home Hospitals Association for paying patients was established, and the first Home Hospital, Fitzroy House, Fitzroy Square, London,

was opened in 1880. Fitzroy House has been considerably enlarged, has invariably paid its way, and has proved invaluable as a pioneer.

The main object of the Home Hospitals Association was to induce the governors of the voluntary hospitals to open wards for the admission of pay patients. To accomplish this, it was determined that Fitzroy House must be absolutely self-supporting from the first, so that it might form a pillar on one side, facing that of the voluntary hospitals on the other side of the stream of the national life, and then it was argued that hospital managers would consent to the erection of a suspension bridge—the pay ward—to connect these two pillars of hospital relief.

The result has more than justified the confidence of the original founders of the Home Hospitals Association. Out of 159 institutions in Great Britain and Ireland, 78 now admit pay patients and receive a portion of their income from this source. Of the London voluntary hospitals with medical schools five out of eleven now admit pay patients. In Scotland the whole of the hospitals that have medical schools admit pay patients, and three out of four of the same class of Irish hospitals also admit them. Taking next the general hospitals it appears that of eighty such institutions situated in the United Kingdom thirty-seven admit pay patients. Of fifty-two special hospitals twenty-nine admit paying patients, and five per cent. of the revenue of the London special hospitals and fifteen per cent. of the income of the provincial special hospitals is obtained from the same source. At St. Thomas's Hospital a considerable revenue is derived from the pay patients' wing; at Guy's Hospital the introduction of the system has tended to promote the interests of the patients and to augment the hospital revenues; and the authorities of the London Hospital, which is situated in the poorest quarter of the metropolis and has the largest pressure upon its beds, have thought it well to promote and pass an Act of Parliament conferring special powers to admit pay patients.

Perhaps the most remarkable evidence of the change in public opinion effected by the success of the Home Hospital known as Fitzroy House is afforded by a recent Order of the Local Government Board which empowers the resident medical officers of the poor-law infirmaries and hospitals to admit accidents and urgent medical cases for the treatment of which the friends of the patients are required to pay such a sum as, after inquiry, may be mutually agreed upon. These facts are satisfactory, and we hope the time is not far distant when every voluntary hospital will grant

each patient the privilege, if he so desire, of paying as much as his means allow for the treatment he receives. Of course, where the patient produces evidence of his inability to pay anything, free relief will be granted without question at all the hospitals.

It will be seen from the information contained in the chapters describing the hospital systems of various countries throughout the world that, as we have said, some form of the pay system is practically universal. We are of opinion that the plan of grading the patients adopted in Sweden and Norway, where all patients are paid for, constitutes the best possible panacea against hospital abuse. We have dealt so fully with this question in another book entitled "*Pay Hospitals of the World*" (London: J. and A. Churchill) that it is not necessary or desirable that we should devote more space in the present chapter to the questions involved. It may be interesting, however, to refer the reader to an exhaustive brochure published by Mr. Burdett-Coutts, M.P., entitled "*The Pay System in Hospitals*" (London: W. S. Johnson, 60 St. Martin's Lane, Charing Cross, W.C., 1888). Mr. Burdett-Coutts justly maintains that the present voluntary hospital system is one of promiscuous charity, and that the hospitals which adopt it are on a false economic basis. He maintains this view in the best interests of the poor, as the general adoption of the pay system would enable a greater number of the really deserving to obtain the benefits of our hospitals. Every absolutely poor person should be treated free of cost during illness, but every other person should only be treated free of cost with respect to such portion of the expenses of hospital treatment as he is unable himself to pay. The modification of the voluntary system of England to this extent would, in Mr. Burdett-Coutts's opinion, as well as our own, "increase, and foster the charitable contributions and solve the financial difficulties of our hospitals." In gathering up the various points which bear upon the pay system Mr. Burdett-Coutts formulates in the main the following fifteen proposals, which we commend to the careful consideration of hospital managers throughout the world:—

1. The pay system is a recognised and sound element, universal in other countries, and largely practised, in various forms, both in large and small, and in general and special hospitals in this country.
2. There is a large actual deficit at present in income at most voluntary hospitals, excluding legacies, which are unreliable.
3. The charitable contributions to hospitals are enormous, but

are not able to support the present system, and, with the constant growth of London, will be less able every year to do so. There is consequently a gradual but growing discouragement to contributors. No principle of self-help, which is so attractive in other charitable enterprises, exists in the present system. It turns a hospital into an almshouse, and pauperises its patients.

4. The incidence of charity is wrong. The hospitals are on a false economic basis.

5. The rectification of this will widen and multiply the benefits to the poor, and will give confidence to subscribers.

6. Why should the pay system exist largely in special hospitals and not in general ones?

7. The pay system means that every person should pay what he can.

(a.) Governors' letters are not the pay system, unless they carry with them assurance from personal knowledge that a patient is able to pay a certain sum, or unable to pay anything.

(b.) On the other hand, free letters to bodies of workpeople, in proportion to subscriptions from them, are an approach to the pay system. An arrangement of this kind should carry a share in the hospital government.

(c.) Free hospitals, strictly confined to patients who can pay nothing, would form part of a general pay system.

8. The pay system should, where possible, include a remunerative ward, such as St. Thomas's Home.

9. For general patients a system of self-assessment, as carried out in America, would be best—that is, the patient should be called upon to prove his inability to pay. This can be done through—

(a.) Subscriber having knowledge of the circumstances,

(b.) Visiting committees,

(c.) Clergyman or doctor,

(d.) In small hospitals, by inquiries by secretary.

10. A fixed scale of graduated payment, according to class of ward occupied, would be possible. A patient would always prefer the best ward he could pay for.

11. Pay system should be applied to out-patient department (perhaps with provident system attached) as well as to in-patients.

12. Pay system must be universal to be completely successful. Universal free hospitals are impossible.

13. Some adjustment between poor-law infirmaries and free wards of hospitals is necessary to prevent unfair preference to different portions of the same class—that is, the absolutely poor.

14. Pay system, as practised through workmen's contributions in solid communities in the north, or by adjusted payments, as in special and cottage hospitals, is more difficult in the sporadic and disbanded elements of London population ; but where energetically tried, as in seamen's contributions to the "Dreadnought" Hospital, and in Glasgow, Leeds, and Stoke-on-Trent, it has been thoroughly successful. The former method represents its most important development in the north, and should be earnestly tried in London.

15. Conclusion. The pay system is based on the principle of self-help ; it adjusts the relations between that and eleemosynary assistance ; it affords skilled treatment to large numbers unable to procure it at home ; it extends the area of benefit to the poor ; it gives organic support to the hospital finances ; and therefore every effort should be made to extend it in London.

CONVALESCENT HOMES.

There comes a stage in the history of all illnesses which do not terminate fatally, where disease has ceased and health has to be restored. This is known as the period of convalescence. Formerly an attempt was made to keep the patients in the hospital under treatment until their health and strength were sufficiently established to enable the bread-winners to resume work on leaving the institution. As the population increased, it became more and more difficult to follow out this system, especially in large towns, and hospital managers realised that the recoveries would be much hastened if the patients could be removed into the country directly the convalescent stage had been reached. This led to the organisation of a new class of medical institutions called "convalescent homes," and to them must be attributed in no small degree the great improvement which has taken place in the results of medical treatment of late years. The convalescent home originated in England, and it is here that it flourishes to a much greater extent than in any other part of the world. The Lords Committee, however, point out in their report that the needs of

the sick poor render the early establishment of many more convalescent institutions highly desirable.

Foreign countries are beginning to realise the importance of founding convalescent homes, and there is little doubt that they will become general in all civilised countries during the next half-century. In the United States of America very few of these institutions exist at the present time, but the medical profession there is becoming fully alive to the important services which these institutions render, and there is evidence to show that the convalescent home will, in a short time, be as general in the United States as it is to-day in England.

From the outset the principle of payment by patients was adopted, and to this fact, no doubt, is in no small measure due the rapid development to which we have already referred earlier in the chapter. The cost of maintaining a bed in a convalescent home is necessarily less than that in a hospital, although the former institutions are on the whole admirably administered. In Vol. IV. of this work we have given a full description, with plans, of some of the convalescent homes, and we will content ourselves here with adding a caution on one point bearing upon their management. There is reason to believe that a certain class of the population find the convalescent home to offer them an inexpensive means of taking a holiday. It has come to pass that very many persons who are not ill in any true meaning of that word at present obtain admission to the convalescent home when they want a holiday or a rest from labour. Now the convalescent home is undoubtedly intended to relieve the pressure upon the hospital beds by admitting convalescent cases so soon as the patients are in a fit condition to be moved into the country. It would be a calamity indeed if the managers were to permit the beds in convalescent institutions to be monopolised by persons who could do equally well in ordinary lodgings, to the exclusion of others who are really ill. We are sure that the bare mention of such a possibility will secure the enactment of one or two regulations which will render it impossible for any such evils to continue.





CHAPTER XXXV.

COTTAGE HOSPITALS.

THE cottage hospital was founded by Mr. Albert Napper, F.R.C.S., of Cranleigh, Surrey, in 1859, to provide for the reception of cases of accident and severe illness in villages and small rural districts. At that time such cases had either to be treated in the cottages where the accommodation was altogether inadequate, or the patient had to be removed to the county hospital, which was often many miles away from the place where the accident occurred. The amount of suffering and loss of life which resulted from the absence of a cottage hospital induced Mr. Napper to open the first of these small hospitals at Cranleigh in Surrey in 1859.

At first this movement met with considerable opposition, but ultimately it became popular, and there are at the present time upwards of 600 cottage hospitals in the United Kingdom. Mr. Napper's idea was to convert to the purpose some suitable cottage or similar building and to fit it up for the reception of patients. Of late years, however, it has become the practice to erect special buildings, and some of the cottage hospitals are as complete and hygienically perfect as any hospitals in the world. The cost of a cottage hospital bed is not usually more than £45 per annum, and the establishment of these institutions has not only rendered a great service to the poor, but has been fruitful in benefits to the profession and the public generally. Cottage hospitals are chiefly confined to England, but during recent years many of them have been erected in the United States of America, where they have excited very general

interest. All patients admitted to treatment in cottage hospitals pay at least 2s. 6d. a week towards the expenses of treatment.

We have dealt fully with the construction and management of cottage and other hospitals with 50 beds and under in a separate book entitled "Cottage Hospitals" (London : J. & A. Churchill), and it is therefore unnecessary to go more fully into this branch of our subject here. No movement has excited greater popularity and attention than that which Mr. Napper originated, and those who are interested in the work will find every requisite information in the book just mentioned.





CHAPTER XXXVI.

FURNITURE AND TRANSPORT.



WE have been identified with the active administration of all types of British hospitals for twenty-five years. At the commencement of this period it was usual to find no attention paid to decoration in hospital wards, which were very frequently only white-washed, and the furniture in which was of the most primitive type. At that time the sanitary condition of most of the hospitals left much to be desired, and the bath, lavatory, and similar fittings and appliances were frequently inadequate, and nearly always indifferent if not absolutely bad. The accommodation provided for the staff was wretchedly inadequate, and often led to outbreaks of illness distinctly traceable to insanitary surroundings. Even the higher officials were provided with apartments so situated as to be conducive to ill health, whilst the nurses and servants were, more frequently than not, placed in the basement, the floors of which were often of stone or brick. It is well to recall these facts at the present time, because they illustrate in the most forcible manner the enormous advance which has taken place in the administration of British hospitals during the last quarter of a century. Any hospital which offered similar accommodation in the present day to its staff would find that it would not be able to secure officers or nurses to undertake the duties devolving upon these officials. If this book does no other service it can, at any rate, claim that the investigations it has been necessary to make in regard to the drainage of British hospitals, in order to supply material for the fourth volume, have resulted in the redrainage of many hundreds of institutions,

all of which now have a proper system where formerly there was not only no system of drainage, but no plan of such drains as were believed to exist.

Much of the ill health which befell the nurses twenty years ago was due to a deep-rooted conviction on the part of the management that it was essential to the discipline of a ward that the sister, or head nurse, should have a room adjacent to and communicating with it by a door and by a window, from which she could look out of her room into the ward at all times. In the result, not only did the sister have to breathe the vitiated atmosphere of the ward, but it was almost impossible under such conditions that needful rest could be obtained by the devoted women who had charge of the large wards in the hospitals of those days. Greater experience and a sounder knowledge of administration have convinced the authorities that it is essential to the well-being of a hospital that the nurses should be on duty during the whole period of each day which is devoted to attendance upon the patients. So soon as the hours of duty are over, it is now recognised that the health of the nurse and her efficient service are increased by a system which provides that she shall sleep away from the wards, in a separate building distinct from the hospital buildings if possible, where she will have the best of air and entire freedom from responsibility, noise, and care of every kind. We do not think it is too strong a statement to make to declare that any architect who now places the sister's room in juxtaposition to the ward with a communicating window proves by such an act that it would not be desirable to accept his plans for a large hospital. This is so, because the existence of such a cardinal defect in his plans may be taken as evidence that when those plans are gone into in detail a host of other defects will be found belonging to an earlier and less intelligent period of hospital construction.

Great advances have been made in the matter of fittings and furniture. Several manufacturers and hospital managers have spared neither money nor time in the endeavour to produce articles of the highest class which will prove to be of the most efficient description for hospital purposes, whilst they exhibit the maximum of artistic beauty. It is due to the Home Hospitals Association for Paying Patients to record that its committee when they opened the first Home Hospital in this country, Fitzroy House, Fitzroy Square, in 1880, rendered an inestimable service to the hospitals by originating very many new appliances and special articles of furniture

of an artistic and practical character for hospital use. Every sick-chamber in Fitzroy House was artistically decorated, and every article of furniture was specially designed to secure the maximum of efficiency with the most harmonious and pleasing effect when placed in the ward. The press were not slow to realise the enormous advantages which would result to the patients if the example thus set were to be followed by the managers of hospitals generally. They called public attention to the matter, and in the result every new hospital which has been erected since that date and very many of the older institutions have been furnished and decorated in a manner which leaves little if anything to be desired.

The establishment of county hospitals for the insane, where economy is necessarily a matter of importance, and where artistic effect has been secured to a surprising degree, helped to emphasise the fact that the most pleasing results could be obtained at small cost, providing a reasonable amount of intelligence and care were bestowed upon the decoration and furnishing of hospital wards and sick-rooms generally. The day has gone by when anyone would maintain that cheapness and whitewash are synonymous terms. So we rejoice to be able to record that it is now a pleasure to visit the wards of most English hospitals, whether they be for the sick or for the insane, owing to the bright and cheerful aspect which attention to these details has secured during recent years. It does a humane person good to visit such institutions as the Royal Infirmary at Liverpool, the Morningside Asylum at Edinburgh, or the Northampton County Asylum, because the whole surroundings of the patients are pleasant and agreeable, and the most artistic and elegant mind will very often be able to take hints on decoration from our public institutions which they can apply to the decoration of their own homes.

We have often said, as the result of fifteen years' continuous residence in various hospitals, that cheerfulness in the sick is the high road to recovery. When it is realised that cheerfulness combined with the most harmonious effects can be obtained without extravagant outlay, we are convinced that those hospitals which pay the maximum of attention to these details will secure, as they deserve to secure, the maximum of public support. Cleanliness is next to godliness, and of all places a hospital needs cleanliness more than any others. If the workers among the sick are encouraged to make the wards bright and beautiful they not un-naturally take a pride in maintaining the utmost cleanliness and

efficiency which it is possible to procure in a great public institution. Many hospitals for the sick and also for the insane might usefully remember this fact, and we would especially urge it upon the attention of the authorities of Addenbrooke's Hospital, Cambridge—an admirable institution in other respects—where the neglect of decorative repair has reached the low-water mark of ugliness and discomfort.

It is no part of our purpose to enter into details to any great extent in the matter of furniture and fittings. Anyone who is particularly interested in such matters will be able, by paying a visit to such institutions as we have named and to many other hospitals which have been built within the last ten years, to make a selection of the most suitable fittings and furniture, and to learn how a hospital ward can be inexpensively and effectively furnished and decorated. It must therefore suffice to enumerate the chief articles of furniture which are required in a hospital, and to leave committees and officials to select such patterns and designs as they may prefer or think best.

A SYSTEMATIC INSPECTION.

We have recently been engaged in a systematic inspection of the principal provincial hospitals in Great Britain. These inspections have convinced us that in very many cases what the hospitals need most to increase their efficiency as houses of cure is more attention to decorative repair and the renewal of furniture. It is quite lamentable to visit an efficiently administered hospital like Addenbrooke's at Cambridge, or the Devon and Exeter Hospital, because the interior arrangements of many portions of these institutions and many others show that the committees have no idea of the importance of decorative repair or the supply of adequate furniture and fittings. It would be a grand day for English provincial hospitals if every committee could be made to realise, that before they spend any more money upon new buildings it is essential that they should expend considerable sums upon internal decoration and the renewal of bedding, furniture, baths, and sanitary appliances throughout their institutions. The natural result of the continuous neglect of these important points is that the buildings become less and less attractive, and that ultimately very large sums of money have to be expended, the major portion of which would have been saved had due attention been paid to renewals and internal decoration. The insanitary state of many of

the fittings, the dilapidated condition of bedsteads and articles of furniture, and the apparently deep-rooted objection which some authorities appear to have to whitewash, colour, and new paint, is as short-sighted as it is reprehensible. We venture to hope that more attention will be paid to these matters, and that the economists on the various committees will set their faces like a rock against any expenditure upon new buildings until those already in occupation have been brought up to a state of completeness which will make them compare favourably with the newer hospitals, which are for the most part replete with every modern appliance.

HOSPITAL FURNITURE.

In proceeding to furnish a hospital, and especially a new building, it is necessary to secure that the architect shall include certain articles as builders' fittings. Amongst them we would specially enumerate the following :—

Bath-room.—Porcelain baths, with rounded porcelain tops or rims of the Rufford pattern, and fitted with hot and cold water, and quick waste.

Lavatories.—Each lavatory should contain fitted basins, about six to the ward, with marble tops.

Sink-room.—Here the slop-sink should be situated, the best pattern being those recently supplied to the London Hospital, the King's College Hospital, and the Liverpool Royal Infirmary. These slop-sinks should only have cold water supplies, one of which should flush the sink and the other by a foot adjustment be made readily available for flushing out the bed-pans. In addition to the slop-sink there should be a draw-off sink, ample space for bed-pans, and a well-ventilated and airy safe, communicating with the outer air, on the Newton-Nixon principle, where stools can be retained for the doctors' inspection. An excellent porcelain sink of large size, specially adapted for hospitals, has been made and fixed at the London Hospital and is worthy of general adoption.

Ward sculleries should contain an American stove similar to those fixed at the Royal Portsmouth Hospital, which is the best we have met with, a sink with draining-board, a dresser, a plate-rack, and a good-sized filter with water laid on.

The builders' fittings should also include a broom cupboard, containing racks for brooms, and also shelves. It is also desirable that blinds should be included in the builders' work.

It would be wearisome to enter into full details as to every article of furniture required in each portion of a large hospital. We have thought, however, that it may prove helpful to enumerate the principal articles of furniture which experience has shown to be desirable in the wards and elsewhere, and we therefore give the following further details.

We have thought it desirable to give one or two rough illustrations of articles which might otherwise not be obtained, though experience has proved that they are on the whole the best articles at present in the market.

In stating the furniture required for a ward containing twenty beds, it is assumed that the ward measures about 29 ft. in width and 86 ft. in length, and that at the end farthest from the entrance are the lavatory and bath-room, the sink-room, and three water-closets; while at the entrance are the duty-room, a single or double-bedded ward, a room for ward linen, a room for patients' clothes, the pantry, a broom cupboard, a space for coal bunker, linen basket, and food trolley, the nurses' water-closets, and a sink and draw-off for cleaning purposes.

Medical Ward.

In a medical ward the following furniture is required—

Twenty-one bedsteads (the extra bedstead being desirable in case of emergencies). One or two of these should be invalid beds with adjustable screw racks.

Twenty-two hair mattresses, four inches thick. Two or three of these should be in three sections, and one or two in two sections to suit different beds.

Twenty-two hair bolsters.	|	One tracheotomy tent.
Twenty-two feather pillows.	|	Two sets of fracture boards.

All the bedsteads should be of iron and of the simplest form, without castors, the feet being fitted with wooden blocks covered on the underside with thick felt. Ordinary beds should be 3 ft. wide, 6 ft. 6 in. long, and 1 ft. 8 in. high to the top of the rails. The invalid beds should be 7 ft. long.

All the woodwork of the furniture should be either ash or oak. Pine is too soft to wear well.

Twenty lockers, as chairs about 18 in. wide, 14 in. from back to front, and 19 in. high to top of seat (*see* fig. 1). The box should have one shelf. The seat should be hinged 9 in. from the front and should lift upwards so as to afford access to the upper shelf.

There should also be a small door in front for access to the lower shelf. The back should be open laths with a view to ventilation.

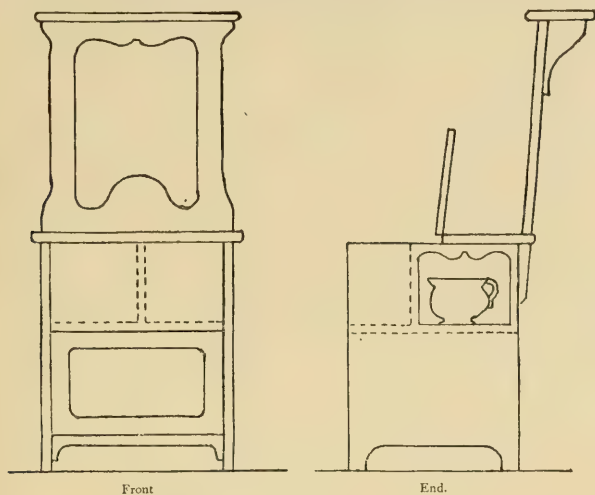


FIG. 1.—LOCKER.

The back of the upper part should be an open frame with a small shelf on the top for books, &c. A brass or wooden rail may be fixed behind for a towel.

Twenty shelves 1 ft. 6 in. long and 6 inches deep, fitted on a board sufficiently large to take the bed and diet cards. The shelf should be fitted with a small rail to prevent the medicine bottles slipping off (*see fig. 2*).

Four ward benches about 6 feet long, strongly made, with either a plain wooden seat or a seat stuffed and covered with some strong material, such as pigskin or American leather.

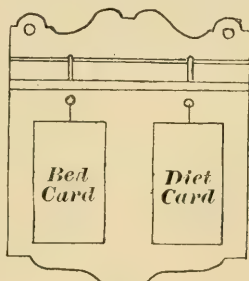


FIG. 2.

Two ward tables, each 6 feet long, 3 ft. 6 in. wide, and 2 ft. 6 in. high, with polished tops.

One wicker basket, and table 2 ft. 6 in. by 1 ft. 3 in., with handles and four legs, for dressings.

Six or eight plain chairs.

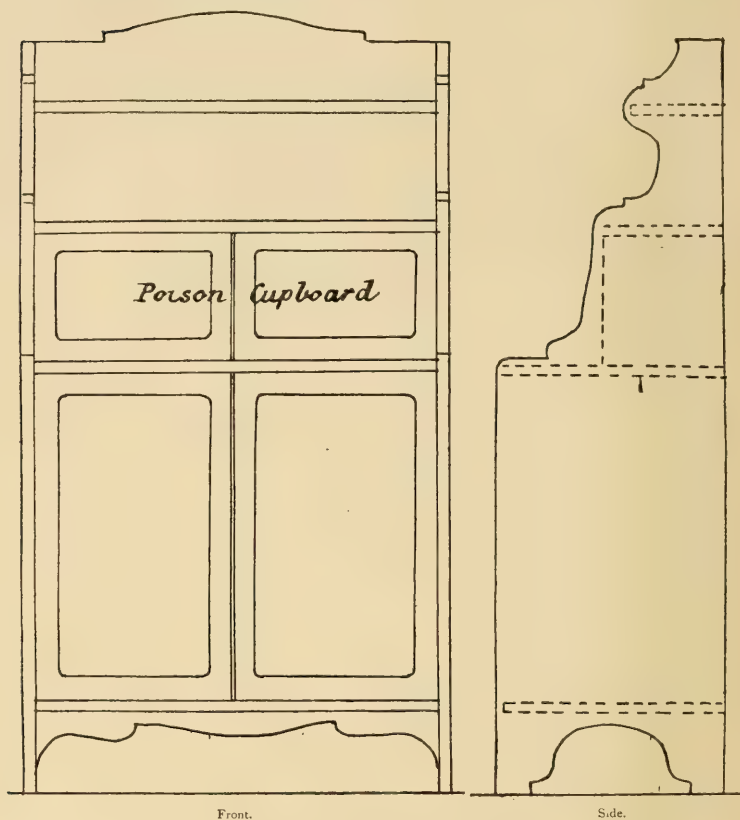


FIG. 3.—BOOKCASE AND POISON CUPBOARD.

Two or four easy arm-chairs.

One or two propelling chairs.

One wash-stand for staff, 3 ft. by 1 ft. 8 in. by 2 ft. 7 in., fitted with veined marble top, and the under part inclosed with sliding doors.

One set of plain white or cream toilet ware.

Four sets of four-fold screens of bamboo, 5 ft. 6 in. high.

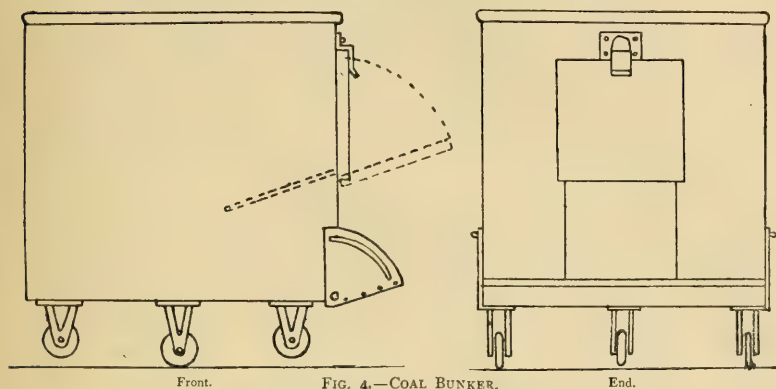


FIG. 4.—COAL BUNKER.

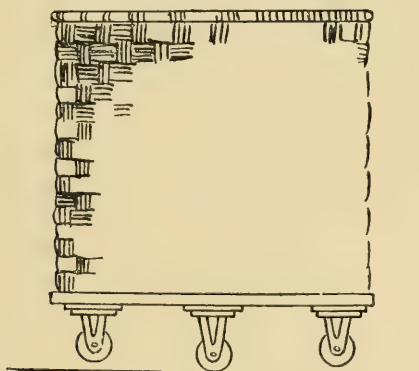


FIG. 5.—SOILED LINEN BASKET.

Six sets of double print cretonne covers for same.

Two sets of three-fold screens.

Three sets of cretonne coverings for same.

One ash bookcase, with cupboard underneath.

One small cupboard, with lock and key, on wall for *poisons*. This may be arranged in connection with the bookcase (*see* fig. 3).

Two *teak* coal bunkers (*see* fig. 4) specially made to fit the lift, with large indiarubber tired wheels.

One or two large soiled linen baskets (*see* fig. 5), also on large wheels and made to fit the lift inclosure.

One food trolley with three shelves fitted with hot-water tins. This should also be on large wheels and made to fit the lift inclosure.

One eight-day clock.

One set of fire-irons.

One thermometer (maximum and minimum).

One high fire-guard to each fireplace.

One bandage roller.

Surgical Ward.

The fittings of a surgical ward would be similar, but there should be in that case at least ten sets of fracture boards.

Children's Ward.

The fittings of a children's ward would only vary in having the cots made with hinged sides and each cot fitted with a movable play table of pine-wood ; four extra sets of bedding ; two tracheotomy tents ; and three sets of fracture boards.

Bath-room.

One set of lattice foot-boards fitted round bath.

One or two large towel rollers.

One chair.

Lavatory.

One or two large towel rollers.

Sink-room.

One air-tight covered iron receptacle for soiled dressings and poultices.

Duty-room.

This should contain—

One deal kitchen table about 5 ft. by 3 ft., strongly made.

Three chairs.

One weighing machine.

Single or Double-bedded Wards.

Furniture of same make as that of the larger wards.	One or two chairs.
Bedstead.	Medicine shelf.
Hair mattress.	Small table.
Hair bolster.	Screen.
Feather pillow.	Fire-irons.
Locker.	Guard.
	Thermometer.

Pantry.

Refrigerator.

General.

In an ordinary hospital there are also required :—

Trolley for the removal of the dead.	Ambulance.
Coffin-shaped basket.	Operating-room trolley.
	Contribution boxes.

Matron's and Resident Medical Staff's Rooms.

The matron's sitting-room, and house surgeon's and house physician's rooms, should each have—

Carpet and rug.	Two easy chairs.
Fender, fire-irons, coal-box.	Couch.
Bookcase.	Writing table.
Table.	Curtains.
Three or four plain chairs.	

Bedrooms.

Each of these should contain—

An iron bedstead (3 ft. 6 in.) and bedding.	Small wardrobe.
Marble-topped wash-stand.	Towel-horse.
Chest of drawers with dressing- glass.	Pedestal.
	White-ware toilet set.
	Fender, fire-irons, coal-box.

Nurses' Rooms.

Each nurse's room should have—

An iron bedstead (3 ft.).	Bedside rug.
Hair mattress.	2 ft. 6 in. marble-topped wash- stand with drawer.
Hair bolster.	Towel-horse.
Feather pillow.	

A chest of drawers (3 ft.) with dressing-glass.	One chair.
Small wardrobe.	One hammock or easy chair.
Set of toilet ware.	Fender.
	Fire-irons.

Servants' Rooms.

The servants will probably sleep two or three together in a room or in cubicles, and each should have—

Bedstead, each with a three-fold screen.

Mattress, bolster and pillow.

Bedside rug.

2 ft. 6 in. marble-topped wash-stand with drawer.

3 ft. chest of drawers with toilet glass.

Set of toilet ware.

Chair.

Wardrobe, divided by partitions for three persons.

Kitchen &c.

The kitchen, servants' hall, nurses' sitting-room and nurses' dining-room must be arranged according to the size and shape of the room in each case and the accommodation required.

Operating and Surgeons' Rooms &c.

The furniture for operating room, surgeons' and ante-room, and for waiting, examining, retiring, and out-patient rooms cannot be definitely stated. The same remark applies to all official rooms.





CHAPTER XXXVII.

SAMARITAN FUNDS: THE EMPLOYMENT OF THE HOSPITAL PATIENT AFTER HIS DISCHARGE.

DURING an extensive tour throughout the United States of America in 1891, in the course of which many of the principal hospitals were visited, we became aware that, as a rule, no Samaritan Funds or societies existed in connection with the hospitals of the United States. In consequence many patients, when the physicians ordered their discharge as convalescent, found themselves in a sad plight owing to defective clothing, the absence of funds, or the social influence necessary to secure a change of air and complete rest under favourable conditions after leaving the hospitals. We called attention to this serious want in connection with the American hospitals in the course of a series of addresses given in the principal eastern cities, with the result that at Baltimore especially a Samaritan Society was at once organised by the ladies interested in the Johns Hopkins Hospital, an example which we were assured would be widely followed. Nearly all the hospitals in the United Kingdom have Samaritan Societies or funds, and every endeavour is made to secure the well-being of the patients after their discharge. The Hospital Sunday and Saturday Funds now set aside a percentage of their receipts each year with the object of providing surgical appliances, artificial limbs, and other necessary articles to enable the patients to obtain a livelihood on leaving the hospitals. We believe the most important of all the Samaritan Funds is that connected with the North London or University College Hospital, the invested funds of which amount

to no less than £36,048. The interest on this money is devoted (*a*) to the purchase of surgical and other appliances for poor patients, especially out-patients; (*b*) to provide tickets for convalescent hospitals and to pay the travelling expenses of patients thus sent to the seaside or to their own homes; (*c*) to provide stimulants and other articles of comfort to poor women in confinement at their own homes; (*d*) to enable the physicians and surgeons of the out-patient department to supply dinners and other medical comforts; (*e*) to provide poor sick children who are brought to the hospital as out-patients with milk on the recommendation of the medical officers; (*f*) to afford assistance to poor patients on leaving the hospital in the form of allowances of five shillings per week for three or more weeks, or special grants so that they may be able to recruit their strength before resuming work; and (*g*) in addition, to grant assistance occasionally to the families of patients while the breadwinners are in the hospital.

We have enumerated these various items as the best way of showing the direction in which the income of the Samaritan Funds attached to hospitals is most advantageously expended. The usual plan is to arrange with the managers of convalescent institutions to allocate a certain number of beds for the use of the patients of certain hospitals which defray the cost of the maintenance of the beds in question, the yearly cost per bed varying from £20 to £30. The late Mr. George Sturge, one of the most benevolent and kind-hearted of men, gave £1,000 to several of the principal hospitals on condition that the money should be kept entirely separate from the general funds of the hospitals, and that the income should be applied for the benefit of such in-patients as might be necessitous during three months from their discharge from the hospital, so as to secure to them necessary nourishment, clothing, or change of air. No one who has had much practical experience of the administration of the in-patient department of a large hospital can doubt that the Samaritan Fund is a most necessary addition to the resources of all well-administered hospitals. It is to be regretted, however, that the general public have heretofore known little of these funds, and so the resources thus placed at the disposal of the managers are frequently altogether out of proportion to the necessities of the patients for whose benefit they were established. We would impress upon all who are interested in the well-being of the suffering poor the importance of looking into this matter with a view to ascertaining how far the income of the Samaritan Funds attached

to the hospital in which they may be interested will suffice to supply the demands made upon it by the patients, because such an inquiry must often result in substantial additions to the resources placed at the disposal of the hospital committees, and so the complete recovery of the patients will be largely promoted in the interests of their families and of the country generally.

THE EMPLOYMENT OF THE HOSPITAL PATIENT AFTER HIS DISCHARGE.

A large number of hospital patients die from being obliged after their discharge from the hospitals to go on with unsuitable occupations. This may be regarded as a strong statement, but it is confirmed by the experience of hospital physicians who have seen much service. This evil arises from the absence of any system at the present time by which certain of the patients, after leaving the hospitals, could obtain employment different from their previous calling for which illness had pre-eminently disqualified them. The class of cases to which we refer includes young girls subject to rheumatism and suffering from heart disease who have to gain a livelihood in domestic service ; men with heart disease who have to earn their living by manual labour ; painters who have already had colic and palsy, and who are obliged to go on with their calling ; patients with chronic bronchitis or phthisis who are compelled by their necessities to undergo constant exposure to weather and other similar insalubrious conditions. It will thus be seen that although the establishment of convalescent homes, which now constitute an integral portion of our hospital system, has provided for the needs of those patients who suffer merely from atony or weakness, the necessary consequence of all disease, the large class of sufferers we have enumerated, whose vitality has been permanently diminished by disease, and who are thereby rendered unfit to pursue their ordinary callings, require special provision to prevent their suffering premature and complete failure of their powers.

Sir Edward Sieveking, M.D., once directed attention to the individuals we refer to, and proved conclusively that they are "not able to follow any calling entailing severe physical exertion such as they undertook before they were attacked by a particular malady. The physician knows and warns them with a heavy heart that some essential part of their organism has received permanent injury, and that unless a change of occupation is permanently made they must

break down, and so return to the hospital to end a life of pain and anxiety. This class of persons are particularly deserving of help and consideration. They are not the habitual drunkards or debauchees, not the reckless and improvident, but especially the young and previously robust who from exposure, overwork, scanty food, and insufficient clothing, have contracted some serious disease, often directly or indirectly in the service of their social superiors." In illustration of this, Sir Edward Sieveking quotes one of the commonest maladies of this country, rheumatic fever, "which attacks both sexes alike, and to which the young between the ages of ten and thirty are particularly prone. Painful as it is, it is rarely followed by a fatal issue, and the immediate results of treatment are almost invariably satisfactory so far as the suffering and fever are concerned. But however great our advances in the therapeutics of the disease have been of late years—and they are indeed striking—it is found that, in a considerable proportion of cases, the heart, the central organ of the circulation, has become more or less impaired. Its greatest lesions are easily discovered and met at the time, but those more subtle injuries that frequently do not manifest themselves at once are liable to entail not only discomfort but serious disability for physical work.

"Many such patients who are disqualified from returning to the occupation of labourer, carpenter, stonemason, maid-of-all-work, salesman, and similar employments would be perfectly well fitted to undertake some lighter occupation not necessitating severe physical labour. But the question constantly arises, How are they, in the absence of any social influence or any acquaintance who can help them, to obtain the desired object?"

Sir Edward Sieveking well and forcibly states the case of many poor sufferers whose lot is indeed a sad one. They are to be met with in connection with all hospitals and form a percentage of the population of every large town. Surely it should be possible for some of the many kind-hearted people who are to be found in every great city to enroll themselves as almoners of the poor, and by placing themselves in communication with the hospital authorities to obtain information of all such cases previous to their discharge. It should not be difficult for such almoners to enlist the sympathy and co-operation of the various employers of labour, so as to enable them to establish a labour bureau and register of situations suitable to the powers of the convalescent patients to whom we refer. As Sir Edward Sieveking has pointed out, a

certain amount of labour and necessarily of personal interest in the work are required, but the chief element of success will probably lie in the confidence which would be reposed in such a body of almoners by the general public, which must be increased and deepened as the generous and unselfish work they have voluntarily undertaken became known to their fellow-citizens. We know from personal experience that the want here referred to is a pressing one, and that if it were met, the lives of many deserving persons would not only be made happier but would be considerably prolonged. No great expenditure of money would be entailed. On the contrary, we are confident that it would be found by experience that personal service rather than pecuniary help is the remedy which should be supplied with the view of preventing an amount of undeserved suffering at present existing amongst hospital patients, which no kind-hearted and thoughtful person can fail to sympathise with or desire to prevent. The thanks of the whole community are due to Sir Edward Sieveking for having called attention to this important matter, and we can only hope that in due course some such simple system as we have ventured to suggest will be universally adopted in connection with all hospitals for the sick throughout the world.





CHAPTER XXXVIII.

HOSPITAL HOUSEKEEPING AND DOMESTIC MANAGEMENT.



ALL the domestic details of hospital management fall to the hands of the lady superintendent or matron—whoever, in fact, is the head of the female staff of the establishment. And as the capabilities of the mistress of a house can be judged from the cleanliness and prettiness of her rooms and the manner in which the meals are served and cooked, so, in going round a hospital it is easy to judge of a matron by the state of the wards and by a glimpse at the nurses' dinner-table.

Of course there are large institutions in which many more or less domestic duties are performed by a steward, a matron, whose work is distinct from that of the lady superintendent, or by a *chef*; but in every well-managed hospital there is one woman at the head of all the household matters, and in supreme control over all the female staff. This is a very important matter, particularly with regard to the nurses, and the following remarks, from the article on "Hospital Administration" in Quain's Dictionary of Medicine, should be borne in mind by all committees: "The nursing establishment cannot be made responsible on the side of discipline to the medical officers or the governors of a hospital. Simplicity of rules, placing the nurse, in all matters regarding management of the sick, absolutely under the orders of the medical staff, and in all disciplinary matters absolutely under the lady superintendent, or matron—to whom the medical officers should refer all cases of neglect—is very important. Any remission or neglect of duty is as much a

breach of discipline as drunkenness or other bad conduct, and can only be dealt with to any good purpose by report to the matron. But neither the medical officer, nor any other male head, should ever have the power to punish for disobedience. His duty should end with reporting the case to the female head."

Considering the position of the lady superintendent of a hospital of 200 beds and upwards, then, we may take it that she is responsible to the weekly board for the housekeeping, and to the medical board or nursing committee for the nursing. An American pamphlet also quaintly declares that she is responsible to God for the moral atmosphere of the institution; and this is very true, for where the lady superintendent is curt in her manners, untidy in her dress, or unpunctual in her habits, her staff always suffer from similar failings. But where the lady superintendent is courteous, neat, and punctual, there will be found the happy atmosphere which reigns where there is neither haste nor hesitation, but time to be kind to all. The following typical directions for a lady superintendent or matron show how vast is the field of work and influence before her:—

(1) The matron shall reside in the hospital constantly, and shall undertake, subject to the supervision of the weekly board, the whole internal management of the hospital, both as regards the house-keeping and the nursing.

(2) She shall have immediate charge, government, and control of the sisters, nurses, probationers, and all the female servants connected with the hospital; she shall engage and discharge them, reporting all such occurrences to the weekly board.

(3) She shall keep a register of all persons employed under her; she shall enter all complaints in a special book; she shall take proper care of all the household goods, crockery, linen and furniture, and keep an inventory and account of the same, and report to the weekly board every article which may be required in her department.

(4) She shall be responsible that the provisions, coals, beer, and other articles be good of their kind, and according to the contracts for supplying the same; she shall see that they are not wasted or conveyed out of the hospital; she shall return such as are of inferior quality, and report the same to the weekly board. She shall take care that the food is properly cooked and accurately distributed according to the entries in the diet sheets and in conformity with the orders of the medical officers. She shall see that the resident

medical officers and the nurses are supplied with necessary comforts.

(5) She shall visit all the wards and offices at least once a day, and be responsible for the cleanliness of every part of the particular hospital. She shall see that all the nurses and servants properly perform their duties, and that they are clean and neat in their persons; and that the nurses attend to the comfort and cleanliness of the patients, and faithfully carry out the orders of the medical officers.

(6) She shall be responsible for the proper management of the laundry.

(7) She shall arrange for all visitors to the hospital being courteously received, and duly conducted over the wards during the prescribed hours. She shall see that the nurses and servants are instructed in their duties, and keep to their respective time-tables. She shall see that they get due time for rest and recreation. She shall pay particular attention to the training of the probationers.

(8) She shall attend the meetings of the weekly board, and take their opinion on all matters of doubt or importance. She shall consider it her duty to conduct the establishment with economy as well as efficiency, and she shall enjoy all the rights and dignity of the mistress of a household.

A truly terrible list of duties, but it is distinctly stated that the matron is merely "responsible" for them all, and of course a sufficient staff for their performance must be allowed. In a hospital of 400 beds, there should be four matron's assistants—the night superintendent, who would be in charge during the night; the house-keeping sister, who would be in charge of the kitchen and the stores; a laundry sister, who would be in charge of the laundry and the linen room; and a Home sister who would be in charge of the Nurses' Home. If necessary, there might also be an office sister to help the matron with her correspondence, and in receiving visitors and interviewing probationers. Then it becomes the chief duty of the matron to choose her assistants with care, and to supervise them with skill. Her daily round should be somewhat on these lines: rise 7 A.M., breakfast 8 A.M., visit wards or kitchen, and be in office by 9.15 A.M.; receive the night superintendent and hear her report; receive each of the ward sisters for a few minutes, merely to say "Good morning," and hear if there is anything which will need the matron's special supervision during the day; receive the Home sister and hear her report; receive the housekeeping

sister and hear her report. From 10.30 A.M. till noon the matron sits in her office attending to her correspondence, and ready to see the secretary or house surgeons or house-physicians if they want to appeal to her on any point. From 12 to 1 P.M. she interviews would-be nurses and probationers, and once a week attends the weekly board. From 1 to 2 P.M. is the lunch hour, during which she may also occasionally visit the wards, kitchens, or nurses' dining-room. Between 2 and 4 P.M. she should see visitors, including the visiting physicians or surgeons if they come to the office. From 4 to 5 P.M. she may attend to letters and write up her diary, petty cash, and other books. Between 5 and 7 P.M. she is off duty, and at the latter hour she dines with the sisters. On one evening in the week she should attend or give a lecture to the nurses; on another be "At Home" to the sisters and nurses, and on another visit the wards and kitchens. This leaves three evenings off duty. On Sunday, the matron should be on duty half the day, alternately morning and evening, and should attend one service in the chapel and visit all the wards. Occasionally the matron should rise in the night and go round the wards.

In this scheme the matron does not make a formal round of the whole building at a stated hour daily, but visits here and there at odd times, so that sisters and nurses never know when to expect her; always when she enters a ward or office, the sister or nurse in charge comes forward and accompanies the matron round, ready to reply to questions, open cupboard doors, and otherwise aid the work of supervision and receive suggestions or orders. Of course the matron must understand what a clean hospital is—must know at a glance when brasses are properly polished or saucepans properly scoured; she must form the habit of looking into corners, and must occasionally turn up a mattress or look into an oven, to make sure that nothing escapes her notice; particular attention must be paid to the cleanliness of the bath-rooms, the lavatories, and the ward kitchens. A hospital will always look perfectly clean, its patients comfortable, and its nurses cheerful, where a good matron reigns.

In her office the matron must conduct all the correspondence relating to the nurses and servants, and must acknowledge those gifts in kind which are sent direct to her. She must keep the following books: diary; petty cash; wages book; letter book; complaint book, in which all suggestions and complaints to be laid before the weekly board are entered; requisition

book, of all articles required in her department; contributions book, of all the gifts in kind, such as old linen; probationers' book, showing the system of ward changing, so that though each probationer is moved from ward to ward and sees all she can during training, a record of where she is working is always in the matron's office; registers of all the sisters, nurses, and servants with quarterly reports of their progress, and her views of their merits; inventory of all the household goods, furniture, linen, and crockery, which must be checked quarterly; and if there are any private nurses, special books recording their earnings, cost, and progress.

The matron should wear a plain dark dress and a cap when on duty, if merely as an example to her nurses. One point often neglected in England is that the matron should sometimes visit the operating theatre and see how the nurses conduct themselves there, for as it is the matron who is responsible for training the probationers, and mainly responsible for granting or withholding their certificates, she should spare no trouble to ascertain in what branches of nursing each probationer fails or excels. The matron of the Middlesex Hospital attends all operations, but other matrons never enter the operating theatres or visit the wards when the surgeons are there, from year's end to year's end. It is also well for the matron to notice virtues as well as faults, and not forget to praise when she sees reason for so doing. Probationers should be received for a month on trial, and be then bound for three years at a nominal salary for the first year, say, £10, and at a salary of £20 for the two subsequent years. Every year courses of lectures on the different branches of nursing should be given by the matron and the physicians and surgeons, and the sisters should hold classes for those probationers working in their wards. At the end of a year each probationer should undergo a written and oral examination on the subjects dealt with in the lectures, and if she passes her name should be entered for a certificate, but the certificate should not be given till the end of the third year. It is well to give medals or prizes to the best competitors at these examinations, as it adds to the interest and increases the importance of the occasion. After passing her examination a probationer becomes an assistant nurse, and takes a more responsible position, even being given charge of a ward in some hospitals, or being made sister if she has proved very capable.

The system of choosing sisters differs greatly. In Guy's Hospital the paying probationers are trained specially for sisters'

work, and the paid probationers are never made sisters. In the Middlesex Hospital it is nearly always the paid probationers who are made sisters. The wisest plan is for the matron to have no rule on the subject, but to be perfectly free to choose her sisters either from the paying or paid ranks, wherever she sees those powers of management and that knowledge of nursing which fairly demands a wider scope. The sister must be a woman whom the matron can trust; she must be able to train those under her, and to reign supreme over her ward without tyranny. The success of a hospital depends largely on the style of sisters who are appointed under the matron, and the choosing of them is a difficult duty which should be left unhampered in the matron's hands, for it is the reputation of the matron that is really at stake, as on her shoulders is all the responsibility.

The question of the advantages of paying probationers is now almost past debating. So long as these women are not given too much power or admitted for too short a period, they are undoubtedly a factor for refining and elevating hospital life. They pay a guinea a week for their board, so that they cost the hospital nothing, and they enable the regular nurses to be more frequently off duty, and relieve them of many trifling tasks. They bring the richer classes into closer contact with a most deserving branch of charities, and the subscription list of an institution always goes up when paying probationers are introduced. The evils are: (1) that the perpetual round of teaching new probationers is fatiguing for charge-nurses and sisters; and (2) that some paying pupils give themselves airs and graces, and bring complaints against the hospitals because they fail to find there all the luxuries they were accustomed to in their home lives. These two difficulties are best met by the matron keeping constantly before the sisters the advantages of having the best of these educated women to pick from and make into nurses, and by reminding them of the value of patience and kindness to these well-meaning girls. The matron must not forget that her influence must be ever directed principally on the sisters, and that they require teaching and encouragement even to the end of their days. The difficulty with regard to grumbling probationers is to put clearly before them when they enter particulars of their work and food, to grant them no privileges which are not granted to the paid probationers, and to meet trifling complaints with severity, leaving the grumbler free to leave if she likes, but on no account returning any part of the fee she has paid. The matron acts chiefly

through the sisters, and it is the work of the latter which leads us to the actual details of domestic management.

Turning to consider the work of the housekeeping sister who rules over the kitchen, we must first point out that those kitchens are best which are built in separate blocks from whence no smell can reach the wards. Every kitchen should be well lighted—underground kitchens are seldom clean, owing to the darkness—the floor should be of red glazed tiles or Granolithic, the walls should be tiled to a height of four feet from the floor, the upper parts being painted or coloured, and there should be plenty of tables, racks &c. of wood which can be well scrubbed. There ought to be a well-lighted scullery fitted with large tubs for washing the vegetables &c. and boards for the kitchen men or maids to stand on while they are engaged on this somewhat lengthy work. The kitchens should be in every way as clean and bright as the wards; there should be no grease anywhere, a result which can easily be obtained by the unsparing use of soda and hot water. The larder should be lined with tiles, and have slate or, if it can be afforded, marble slabs. There should be no glass in the windows, and the upper part of the door should be of fine wire gauze, so that the sister, by merely passing along the passage, can see that all is tidy, and smell that all is sweet.

The housekeeping sister must rise early and see that the officers' breakfast is punctually and properly supplied, and then receive the stores as they arrive, weighing and sampling them to see that they are according to contract. In large hospitals all is done by contract, and the evil is that in the effort to be economical too low a price is accepted and some one must suffer. In a case which came forward lately, a butcher undertook to supply an institution with meat at $5\frac{3}{4}d.$ a pound all round; the result was that the joints for the officers' tables were good, those for the patients poor, and those for the nurses bad. It is the duty of the housekeeping sister to see that nothing of this sort occurs, and to point out through the matron, when the contract is so low that inferior goods are supplied. The meat should always be supplied in joints, not in the carcass. As early as possible the housekeeping sister must secure the diet sheets, and make out for the cook a list of diets required. She must then go round and see that all the boilers and ovens are cleaned before they are used; she must see that the vegetables are being properly washed, and that cleanliness and economy reign everywhere. Cooking is

nearly always done now by atmospheric gas or by steam, a process which is cleanly, saves labour and expense, and reduces the waste of the meat. If according to the diet sheets 110 lb. of roast beef are needed, 150 lb. will have to be put down in a gas oven, or 160 lb. if the oven is heated by an old-fashioned furnace. The sister must always calculate the waste; she must also make the cook keep a note of the hour at which the oven gas is lighted, when it is put out, and what the consumption of gas is during the time. Thus, for 110 lb. of roast beef to be served at noon, the gas would be lighted about 9 A.M. and put out about 11.30 A.M.

Having started the morning work the sister goes to the matron to report, and then returns and goes round all the offices with the cook. She then superintends the preparing of special diets such as chicken, chops &c. which should be cooked on an ordinary range. When everything is ready, fair samples of each dish should be neatly spread at one end of the table for the sister to taste; then comes the serious business of serving and dividing out accurately and rapidly this enormous quantity of food. The meat, potatoes, and puddings, in separate tins lined with hot water, and each tin bearing the name of the ward to which it belongs, should be sent by lifts and trolleys to their destination as quickly as possible, an electric bell being rung in each ward to warn the nurses that the food is coming. It is the duty of the housekeeping sister to see that all the diets reach the wards in the state which is commonly called "piping hot." Where special beef-tea is ordered for a serious case, such as typhoid, it may be prepared by the nurse in charge of the case, the requisite meat being sent to the ward. In the same way other small dishes, such as custard puddings, can be made in the wards. In America all the nurses receive thorough training in invalid cookery, and have to spend a month in the kitchen; in England this branch of a nurse's education is generally neglected.

In the Appendix will be found an account of the cooking school in connection with the Johns Hopkins Hospital at Baltimore. The diet tables of the London Hospital and the Halifax Infirmary are also given in the Appendix. The diet sheet should hang in every ward of a hospital, in the kitchen and scullery, and in the matron's and secretary's offices. When the tins come down from the wards, it is the duty of the housekeeping sister to decide what pieces are available for soups, pies &c. and see that all the scraps, together with the bones, are put aside for sale. There are no perquisites in

a hospital, and in the receipts of the Norfolk Hospital (220 beds) for 1890 stands this item: "By sale of dripping, bones &c. £14 9s. 11d." In the Appendix will be found tables of the cost of articles of maintenance at Edinburgh Royal Infirmary in 1889, and the cost and quantities per occupied bed. The housekeeping sister should train herself to watch the market price of provisions as given in the daily papers. She will find this practice specially useful in providing for the officers' table. The nurses' food and meals, in passing be it remarked, should be cooked and served by a separate establishment in the Nurses' Home and under the direction of the Home sister. It is better for the officers to dine in the evening, when the cook is at liberty to devote all his attention to their meals; a liberal supply of fish, vegetables, puddings, and fruit when in season, should be allowed over and beyond the standing joint. Care should be taken to secure variety, and attention devoted to serving up the food with nicety. All the officers' food should be cooked on the ordinary range if possible, or at least in a separate oven.

As a rule, the housekeeping sister has under her a man as head cook, a male assistant, and a staff of four or five kitchen-maids. It is noteworthy that at Leavesden Asylum (2,000 beds) the head cook is a woman, with a staff of kitchen-men under her. There is so much heavy lifting in large kitchens that the presence of men is almost indispensable. The hours of all the servants must be carefully arranged and written out, each individual being allowed two hours off duty daily. Each servant should also have a written list of daily instructions; in this way only will it be possible to secure the remembering that the flues must be swept every Friday, the boilers and cisterns cleaned on the first day of every month, &c. Unless each duty has its day and date, it will never be regularly or properly done. It is a good plan to give all petty officers a book of "minor instructions," in which entries can be made from time to time as circumstances suggest. Duplicate books should be kept in the matron's office, and each entry should be initialled by her. This refers not only to the housekeeping, but to the laundry, linen, and all other departments. The housekeeping sister must keep a day-book and a weekly analysis of the expenditure in her department. She should keep the keys of all the larders, and of the coal, coke, and wood sheds; though, if necessary, duplicate keys can be in the possession of the head cook during the day, and be handed over to the sister at night. Where there is a steward or storekeeper,

he has charge of the fuel and the provisions, and issues them to the sister. There should be a quarterly stock-taking in this as in all departments. The housekeeping sister must visit the dust-bins, back yard, and offices every day, and see that they are all in proper order.

The duties of the laundry-sister are far easier where the building, though in connection with the hospital, is a separate block. To have the laundry in the middle of the hospital, or under some of the wards, necessitates the noise of the machinery disturbing the patients and nurses, and the steam clouding the ward windows. The building should consist of two large washing-rooms fitted with coppers and washing-machines, and also with wash-tubs along the wall on one side. The machinery should be worked by steam power, and steam should heat the coppers, &c. There ought to be two drying-rooms fitted with numerous hot air chambers with sliding drying-frames, an ironing-room, a sorting-room, a folding-room, a clean linen room, and a disinfecting chamber. A laundry is a very difficult place to keep clean and sweet, and particular attention must be paid to its ventilation, so that the hot air rising from the water in which dirty clothing is being boiled may never hang about the place. The ironing and clean linen rooms should be easily kept nice, but the actual laundry needs constant and careful supervision. It is necessary to have at least one man in the laundry to help with the heavy work. In the London Hospital (880 beds) there is a head laundress, a laundry porter, six resident assistant laundresses, and seventeen women at weekly wages. On Monday mornings there is also an extra porter employed to help to clear away the blankets. When possible, it is better to have only resident laundresses, but in the centre of a large town this is not always practicable. In the London Hospital laundry, a week's washing will average about 2,600 pieces of ward linen, of which 1,300 will be sheets. The private linen will comprise about 1,600 pieces, of which 300 will be shirts and collars—things which need care in the getting up. The Nursing Home will send about 5,000 pieces to the laundry weekly, exclusive of the nurses' personal linen except cotton frocks.

To take the case of a smaller hospital, where about 100 beds are occupied, the following is a list from the Women's Hospital, New York: Patients' body linen, 500 pieces; officers' and nurses', 27 pieces; bed and table linen for all, 1,226 pieces. In this hospital one head laundress is employed, who sorts and delivers

the clothes; under her are six women—two tend the washing machines and mangles, two wash the personal or starched linen, and two iron. Where possible, all linen, including that of the servants and the nurses, should be washed in the hospital laundry free of expense. Cleanliness being of the utmost importance, it is folly to exercise rigid economy in this direction. At the London Hospital, the housekeeper issues every Friday the laundry stores for the week. These average 67 bars of carbolic soap (3 lb. to the bar), and 97 lb. of soda for the ward washing; 43 bars of yellow soap (3 lb. to the bar), and 105 lb. of soda for the private washing; and 26 lb. of paraffin soap for the greasy sheets. Many a hospital matron has sought in vain for some recipe for cleaning the sheets stained by ointments, especially in burn cases. It is worth while, therefore, to mention here that paraffin is the best cleanser in these cases.

One of the most serious points in connection with the laundry is that of disinfection. As a rule the disinfecting chamber is under the charge of the engineer, and all infected clothing is there thoroughly baked. But supposing body linen infested with vermin be sent down, or linen which has been used for typhoid cases, it should be immediately plunged into a strong solution of carbolic acid (one ounce to a gallon of water) in an air-tight vat, and soaked twelve hours before being washed in the usual manner. All such linen must be marked by the nurse in large clear letters "Disinfect;" it must be attended to immediately it reaches the laundry, and it must be kept in coppers and wringers separate from the other clothing. In some hospitals an air-tight pail is kept specially for carrying the infected linen from the wards.

The laundry-sister must give to each of her subordinates a timetable, and arrange for each to have proper time off duty. As the laundry is usually closed on Sundays, save for receiving and soaking infected linen, most of the laundry-maids get one clear day's holiday each week, and therefore do not need the two hours daily which should be given to all nurses, and kitchen and ward servants. Each person should also have a written list of his or her duties, and hanging in a conspicuous place in the laundry should be a card giving directions for the washing of ward linen, personal linen, infected linen, and woollen goods. Such bandages as may be sent to be washed should always be treated as infected linen.

The laundry-sister's duties do not end with due inspection and care of the laundry. On her shoulders should also rest the

responsibility of seeing that all the ward linen is well aired, well mended, plainly marked, and sufficient in quantity. She ought, therefore, to have a fairly large linen-room, fitted with a sewing-machine and big table and plenty of presses. One linen-maid should be enough in a hospital of 100 beds, or two maids in a hospital of 300 beds. Between her regular inspections of the laundry and supervision of the receiving and returning of the weekly wash, the sister should sit in the linen-room and help the maids to mark and mend the linen. So far as possible the convalescing patients in the women's wards should be encouraged to help in needlework, but this should never be made an absolute rule; it should be left to the discretion of the ward-sisters. Linen which is past mending can be used for bandages, for covering splints, or for compresses; it should be the duty of the sister to decide for what the old linen is best fitted, and to see that it is put to that use. Old blankets should become scrubbers' cloths, and old quilts dusters. The sister must keep a weekly account of the linen issued to each ward, and of the linen withdrawn from use. She must keep an inventory and have the usual quarterly stock-taking. Miss Florence Lees gives the following list of linen necessary for a general hospital of 200 beds: 500 linen sheets, 500 cotton sheets, 400 counterpanes, 500 pillow cases, 250 draw sheets, 800 blankets, 600 counterpanes, 250 round towels, 500 hand towels, 50 table cloths, 200 dusters, 50 pantry cloths. In supplying linen for a new hospital, an expenditure of £165 for every fifty beds will be necessary; this includes home and kitchen and ward linen. The hours of the laundry-sister must vary daily, but she should of course rise and take her meals at the same time as the other sisters. On receiving and returning days her presence will be mostly required in checking the linen as it arrives and leaves the laundry; on other days her time may be chiefly employed in the linen-room. She should always commence the day's work by a round of thorough inspection of every department under her care, and the last thing before retiring she should visit the laundry to see that there is no chance of fire arising in the drying presses or elsewhere.

The duties of the home-sister are entirely concerned with the comfort and health of the nurses, and she is responsible to the matron for the whole conduct of the home. To make the home in any way successful it should be a separate building connected with the hospital by a corridor, and the whole of the commissariat

should be separate from that of the main building. The nurses should have a separate bedroom each, a nice general sitting-room, and a common dining-room. The sister's room should be on the ground floor, close to the entrance. The kitchens should be at the top or out at the back of the building. The home-sister rises at 6 A.M., and half an hour later she will be in the dining-room to preside at the day-nurses' breakfast. She sits near the door and puts a mark against the name of any nurse entering after grace has been said. After breakfast she goes round all the bedrooms to see that the windows are open and that the beds and rooms are being thoroughly aired. About this time, too, letters generally arrive by the post, and the sister has to sort them for the nurses. Soon after 8 A.M. the sister must be in the kitchen to interview the cook and arrange the day's meals, give out the stores, and go round the larders and outhouses, &c. Between 9 and 10 A.M. she must go to the office and give her written and verbal reports to the matron, particularly as to the cases of nurses who are ill, or, in her opinion, not looking well. At 10 A.M. she will have to preside at the night-nurses' dinner, and when that is over she must once more go round all the bedrooms and see that they are tidy, and also visit all the lavatories and bathrooms. From noon till 1 P.M. the sister ought to be able to sit in her own room and attend to her correspondence. At 1 and 1.30 P.M. she must preside at the nurses' dinners. She must afterwards visit the bedrooms of the uppermost story, which should be devoted to the night-nurses, and see that the nurses are all in bed and that all is quiet. In the afternoon the sister should get two hours off duty, returning in time to preside at the nurses' teas at 5 and 5.30 P.M. At 7 P.M. will be the sister's dinner; at 8.30 P.M. the night-nurses' breakfast; at 9.15 P.M. the day-nurses' supper; and at 10.30 P.M. the sister must see that all lights are out in the home. Owing to the two sets of nurses to be provided for, and the fact that the nurses can never all leave the wards at the same time, there is an almost continuous series of meals, all of which must be nicely served. In some cases it is possible to arrange for the night sister to take her meals with the night-nurses and superintendent, but as the home-sister is responsible for the meals and their serving she must at least be present two or three times a week.

There used to be an old theory that boiled mutton one day and roast beef the next was the proper menu for the nurses' table, but that theory is quite exploded now, and the home-sister has to

rack her brains to secure variety with due economy. Miss Emma Durham is responsible for the following suggestions as to nurses' diet: "The breakfast should be a good, nourishing one—well-boiled oatmeal porridge, with either fish, bacon, or eggs. When fish is cheap why should not a change be made to a plentiful supply of kedgerree, with tea and coffee? Instead of beer and bread and cheese at eleven o'clock, I would give them a cup of milk and a wholemeal biscuit. Then for dinner a good meal of freshly cooked butcher's meat, with two kinds of vegetables. Tea, bread and butter. If fruit can be got at a reasonable price, give it them. The suppers have generally been a trial to most matrons to get a variety which shall be inexpensive. In hot weather nurses are always satisfied with cold meat and salad, milk pudding, and sometimes stewed fruit. But in carving for the midday meal let it be so done that a whole joint be left if possible for the supper. This is far more appetising than two or three joints spread about the table with pieces hanging to the bone. Hence deftness in carving is essential to economy and comfort. Salads should be fresh and crisp, not a dish of faded leaves; so many different kinds can be arranged from cold vegetables left from the midday dinner, only let everything be fresh and clean. Then there are various winter supper dishes, for example, the well-known potato pie, both juicy and savoury. Any day the meat happens to be underdone near the bone for dinner cut it in small square pieces and bake in batter. Or if boiled veal or mutton should be the dinner, nothing makes better curry than already cooked meat; or grind up the meat and put equal parts of boiled rice or bread crumbs, and fry as rissoles."

Everyone has heard the old story of the student who asked Turner with what he mixed his paints: "With brains, sir," replied the artist; and truly it is brains that have been so far lacking in the menus for nurses. It only needs a little forethought to provide variety in food: the sister in her daily walk can keep her eyes open and note when celery and oranges and bananas are cheap and make use of her observations. Meals are not meant to be used as a calendar, so that a nurse can say, "Let me see—we had boiled beef for dinner, this is Tuesday." Of course it saves a sister trouble to have a fixed diet table all neatly arranged, but she must remember that what is permissible for patients who are only a short time in hospital, is not permissible for nurses who spend their lives there. Fish always on Friday is of course allowable where there

are Catholics. It is a mistaken and undignified thing to give nurses beer money ; beer and milk should be supplied, and nurses allowed to have their choice ; if the beer is good it is a nourishing addition to the diet, and can do no harm in the small quantity supplied. Milk everyone knows to be a most valuable food. Nurses are inclined to take far more tea than is good for them, so it should only be supplied twice a day by the hospital. It is, of course, impossible, and would be unwise to try, to prevent the nurses from taking tea during their off-duty hours. Nurses cannot be treated as babies ; but the matron or physician in their lectures might point out how much indigestion and anæmia are caused by the habit of continually indulging in cups of tea. The nurses' diet, then, is to be nicely cooked, neatly dished and served, nutritive and digestible, and as varied as possible.

The health of the nurses, however, does not depend on the food alone but on the amount of fresh air they get, and it must be part of the home-sister's duty to see that the nurses do not stay in for too many days in succession. Here, again, there can be no rules, and the sister must use discretion ; it is not for her to say what form of recreation the nurses should indulge in, or always to be worrying them, and hunting them up in their brief leisure. But she should note those nurses who habitually sit over the fire instead of going out for a walk, and should remonstrate with them, and if necessary, report them to the matron. A nurse always dislikes to complain about her health, but seeing in what danger of infection she is, it is necessary that she should not be allowed to get into a weakly state for need of a little attention or a tonic. The nurse who sends her plate away unemptied, who has dark rings under her eyes, who lies down on her bed in off-duty hours, should be secure of the observation and sympathy of the home-sister, who should take what steps she considers necessary to remedy this state of things.

The home-sister will have the control of the servants who work in the home, and will give them all written time-tables and see that they get their hours off duty. She will arrange special days for the special duties, one day the cleaning of the plate, another the changing of linen, and so on. She will keep an inventory, and have a quarterly stock-taking ; she will keep all the accounts and also a daily diary. It is not unusual to appoint as home-sister some one unacquainted with nursing duties ; this is, as a rule, a mistake, as only one who has worked in the wards can fully sympathise with nurses and understand their needs.

The duties of the night-sister are singularly undefinable ; she has full control over the nurses during the night, and she spends her time in patrolling from ward to ward and seeing how all goes on. Where there are bad cases she will spend most time ; and she must see any case received during the night directly it reaches the ward. Greater responsibility rests on the night-sister than on any other of the matron's deputies, and therefore, only a woman of long and tried service should be appointed to the post. The ward-sisters must each leave written reports for the guidance of the night-sister before they go off duty ; and the night-sister must in the morning give a verbal report to each ward-sister. There is great danger of rivalry and jealousy between the day-sisters and night-sisters, hence the wise custom of giving the title of night superintendent in some hospitals, to show extra appreciation of the more arduous post. The hours of the night-sister are similar to those of the night-nurses, and the only book she has to keep is that which contains her daily reports to the matron.

It is necessary for the matron to direct the relations of the ward-sisters towards the patients, the nurses, and the ward-maids. It is an acknowledged fact that the sister can make a ward a happy or a hateful place to all in it, and a patient will commiserate with another who has to be moved where there is what is called "a nasty sister," or a probationer will envy a fellow-worker moved to where a "nice sister" reigns. Great then is the difficulty in choosing suitable sisters and in exercising proper control over them. Sisters must be kind to the patients and not too strict, but they must be firm and just in their dealings with the nurses and the servants. A woman who manages a ward well, keeping it scrupulously clean, and having everything done to time and in order, may be hated by the patients, and may retard their recovery by the dislike she arouses. A good-natured woman who is adored by the patients, may be disliked by the nurses, because of the want of method which increases their labours. The duties of these ward-sisters are fully explained and dilated on in a small book by Miss Luckes called "Hospital Sisters," in which is pointed out the scope of the sisters' powers. The sisters are responsible for everything in the wards, from the floors upwards ; they must keep a continuous supervision on the nurses and ward-maids, and by frequent blame and praise keep all at the highest level, never allowing things to fall into passive mediocrity ; and this without nagging or disturbing the peace of the ward by frequent fussing.

The duties of the sister towards the nurses and probationers have already been detailed in the chapter on "Nursing;" the position of the ward-maid must, however, be touched on here. Very rapidly all hard physical work is being removed from the nurse's province, and put on the shoulders of the poor ward-maid, who has to do the scrubbing, keep the fires in, clean the grates, fill the boilers, carry the milk, and scour the tins. The absolute cleanliness of the ward itself mainly depends on the ward-maid, and she should look for her orders directly to the sister and not to the nurses. No familiarity should be allowed between the nurses and the ward-maid, but at the same time no bullying should be tolerated on the part of the nurses. In some institutions the ward-maid lives outside the hospital, and comes in from 7 A.M. to 7 P.M. daily. She is provided with uniform, food, and from 7s. to 12s. a week as wages. Her daily routine of work should be written out by the sister and pinned up in the ward-kitchen. These duties will probably need supplementing by a monthly or weekly special cleaning, when a charwoman at 2s. 6d. for the day should be employed. If there is only one ward-maid to two wards, as happens in some hospitals, it is impossible for her to do all the scrubbing unaided. Nor must a sister expect the ward-maid to work without tools; pails, cloths, brushes, kettles &c. must be supplied, and must be kept in good condition; the supervision of the sister must be as strict over these as over her cupboard of drugs. The daily inspection of the ward-kitchen, lavatories, refrigerator, bath-room, milk-cans, oven, boiler &c. will not take long if systematically done, and before the sister makes her report to the matron in the morning, she should know if any of her drugs are short, if her tins are in need of repair, or if there is a handle or knob off any door, window, or bed. Once a ward is in efficient order there ought to be no difficulty in the working, if each person has distinct duties and is kept under close but kindly supervision. Printed forms for returning the number of unoccupied beds, breakages, stores required &c. should be supplied in every large institution. Method and order are practically the only directions necessary to a matron or any of her assistants to secure the proper domestic management of a large institution. The list of duties of the sisters of Charing Cross Hospital will be found in the Appendices.



CHAPTER XXXIX.

HOSPITAL ORGANISATION.

SYSTEMS OF ADMINISTRATION, RULES AND REGULATIONS.

IT would be wearisome to attempt to go in detail into the various systems of organisation to be met with in the various countries and in connection with different groups of hospitals. We do not, therefore, propose to attempt anything of the kind, especially as the particulars already given in relation to each country will practically supply much of this information.

Speaking generally, it may be stated that hospitals are organised on two main plans: Firstly, where as in the case of the majority of English hospitals the supreme power is vested in a body of governors who have mainly attained to this position by contributing a certain sum to the funds of the institution; and secondly, there are very many hospitals which owe their maintenance in whole or in part to State or municipal support. In the case of the second group, the chief management is vested in a board elected by the representatives of the State or municipality, as the case may be, whilst the internal administration is placed under the management of a medical superintendent, who exercises practically supreme control over the whole of the staff, and who is held responsible for the efficiency of each and all of the departments. On the other hand, where, as in the first case, the supreme authority lies with the governors, a Committee of Management is appointed out of the whole body of governors, such committee being empowered to appoint the necessary officers, and to formulate from time to

time such regulations for the administration of the institution as may be found necessary or desirable. The internal management in the latter case is entrusted either to a medical superintendent or to a lay official, with the title of house governor, superintendent, or director. Much might be written as to the relative advantages or disadvantages of the chief executive authority in a hospital being exercised by a layman or a medical officer. There can be no doubt, if true regard be had to efficiency, that supreme authority must be vested in some one officer, or the whole economy is likely to suffer.

This view was taken by the Committee of the House of Lords appointed to inquire into the management of the Metropolitan Hospitals. They were apparently much struck with the advantages that had resulted to the Poor-law Infirmarys by vesting the supreme authority in the hands of a medical superintendent. On the other hand, some of the best managed hospitals in England are administered by laymen with a title of house governor, or director, amongst which we may mention the London Hospital, the National Hospital for Paralysed and Epileptic, the Birmingham General Hospital, and the Manchester Royal Infirmary. In the United States, after a most careful inquiry, we have come to the conclusion that unless the chief authority be vested in the medical superintendent the whole administration suffers. This is because politics enter so largely into the national life that the laymen who hold the office of superintendent in certain of the American hospitals have been selected, apparently not because they have had experience, or have shown their ability for the work, but simply as members of a political party. Hence the best administered American hospitals are those directed by superintendents who are not laymen, and who have been selected on grounds of special fitness alone.

Our experience leads us to conclude that, providing the Board of Management are efficient, it does not really matter materially whether the chief authority be a medical man or a layman, always providing that the gentleman appointed is specially qualified to discharge the duties entrusted to him.

THE BOARD OR COMMITTEE OF MANAGEMENT.

At one time it used to be thought that it was desirable to hold a weekly board at which any governor had the right to be present and take part in the proceedings. This system of "open boards" is still to be met with at St. George's Hospital, London, but after

full trial it has been found to work less satisfactorily than the more prevalent system, which provides for the annual election of a Board of Management out of the whole body of governors, the board being then made responsible for the efficient conduct of the affairs of the institution.

In any case, whatever system may prevail, care should be taken to secure that the members of these boards or committees are elected by the general body of governors, as otherwise the management is sure to suffer seriously.

No more forcible example of this fact can be quoted than the findings of the Lords Committee in regard to the endowed hospitals, where the governors are self-elected and therefore free from all effective criticism.

It is certainly somewhat startling to find, from the report of the Lords' Committee, that the oldest and wealthiest hospital in the British Empire is the one where the management commends itself least to the judgment of the members of the Committee, who sat for three years to inquire into the working of the whole of the metropolitan hospitals. Abundant evidence of the same truth might be quoted from the United States of America, where the best managed hospitals are those that have adopted the "close board," the members of which have to report each year to the governors in public meeting, and where they are also subject to re-election by the same authority.

Another point which has given rise to much controversy is the question as to how far it is desirable for the members of the honorary staff to be members of the Board of Management. In some cases the whole of the honorary medical officers are *ex officio* members of the Board of Management; in others, no member of the honorary staff is eligible to serve on the lay committee; and yet again, in a third case, the medical board of the hospital—which consists of all the honorary medical staff—elects each year two members of its body to represent their interests on the Board of Management.

The Queen's Hospital, Birmingham (where the acting members of the honorary staff with the exception of the physicians for out-patients, the consulting surgeons, and the dental surgeon, are members) is an example of the first system, the London Hospital of the second, and the Royal Hants County Hospital, Winchester, of the third.

We are of opinion that the best system for the medical practi-

tioner is undoubtedly that which secures him absolute independence, by constituting the medical board a board of reference to which all medical matters must be referred in the first instance by the lay committee. Such a system saves the medical staff the trouble of having to engage in affairs which they have very often neither the time nor the wish to meddle with.

There is no better administered hospital in the world, so far as freedom from internal strife is concerned, than the London Hospital, where no member of the medical staff has ever been on the Board of Management, and where the affairs of the medical school, strange to say, are administered by a mixed board of whom about half are laymen and half are members of the medical profession. In any case, we are certain that the well-being of the staff and the institution demands that only a certain number of the honorary medical staff, elected by their colleagues, should in any case be members of the lay committee.

We are led to make this distinct declaration as experience shows that where all the medical staff are *ex officio* members of the Board of Management, the medical board ceases to be of any practical value, because each member of it, when he finds himself in a minority amongst his colleagues, is apt to go to the lay committee and urge his views upon its members, when, if his influence be sufficient, he may often succeed in carrying a resolution in the teeth of the majority of the medical staff.

Such a state of affairs is never creditable to anyone concerned, and any system which does not recognise this fact and provide against it must be condemned in advance on its merits.

THE HONORARY MEDICAL STAFF.

In many foreign countries the election of the honorary medical staff is vested in the Government or municipal authorities. This is necessarily the case owing to the fact that the institutions are mainly, and sometimes wholly, supported out of Government or municipal funds. As by far the larger number of the best managed hospitals of the world are, however, supported mainly by voluntary contributions, we propose to suggest what we consider on the whole to be the best system for the election of these gentlemen, and to define how far it is desirable to limit the term of office, and to provide for its termination in certain cases.

Undoubtedly the simplest and fairest method of electing an

honorary medical officer to a great hospital is by means of a special election committee. Such a committee of election should consist of a hundred governors in the case of the larger hospitals, and of fifty in the case of the smaller ones, and should be constituted as follows :—

(a) Of the members of the committee of the hospital, as defined in the bye-laws ;

(b) Of the consulting physicians and surgeons ; and

(c) Of such number of the governors chosen by ballot at the first meeting of the committee after its own election in each year, which shall be called or made special for the purpose, as, together with the persons included in (a) and (b), will make up the number of the committee of election to 100 or 50, as the case may be.

Within two calendar months after the occurrence of any vacancy among the honorary medical officers, the committee of the hospital should, at a meeting to be convened or made special for the purpose, order advertisements for candidates for the vacant post to be inserted in two at least of the principal local papers, and in two at least of the medical journals. Such advertisements should require each applicant to transmit to the secretary within a stated time his application, testimonials, diploma, or other evidence of his degree, and any candidate who fails to comply with these conditions should be ineligible for election. On receipt of such evidence, the secretary should remit the same to the medical committee, who should report to the chairman of the committee of election whether the candidates are duly qualified according to the laws. Fourteen days before the meeting of the committee of election the secretary should send to every member of such committee notice of the time and place of the election, and to every candidate a similar notice, together with a printed list of members of the committee of election, with their addresses. At the meeting of the committee of election the chairman of the committee of the hospital should have the right to preside, but in his absence the meeting should appoint a chairman. The voting should be ascertained by a show of hands, or by ballot, as each such meeting may determine, and the majority by which the candidate should be elected should be the majority of the persons present and voting. In case of an equality of votes, the chairman should have a second or casting vote. The minutes of such meeting, signed by the chairman, should be sufficient evidence of any election by such meeting.

If a majority of the committee of election be of opinion that

it would be inexpedient to elect any of the candidates, the proceedings for filling the vacancy should be begun again *de novo*.

Any favouritism or opportunity for malpractice is rendered practically impossible by this mode of election, which is therefore commending itself more and more to the adoption of the governors of every well-administered voluntary hospital throughout the world.

A few words may be said as to the limit it is desirable to place upon the tenure of office by an honorary medical officer, and as to the best method of providing for an earlier termination of an appointment where circumstances render it desirable.

With regard to limit, two plans prevail: The first provides that every honorary medical officer shall be subject to re-election by the governors each year, or that his appointment shall be for ten years only, subject to re-election. The second plan provides that the honorary medical and surgical officers shall vacate their respective offices on attaining the age of sixty years, to which regulation is usually attached a proviso that by a special vote of a meeting of the governors, made special for that purpose, any such medical officer may be retained in office for a further period of five years, at the governors' discretion.

With reference to the point of terminating the tenure of office of an honorary medical officer, who is not subject to annual re-election, it is usual for the bye-laws to provide that in case a majority of at least three-fourths of the committee present and voting at a meeting, convened or made special for that purpose, shall resolve that any honorary medical or surgical officer is incapable of efficiently discharging his duties, or has so conducted himself that his continuance in office would be detrimental to the hospital, the committee shall so report to a special general meeting of governors, which meeting shall have the power to remove him from office.

We are convinced, after twenty-five years' experience of the system here advocated, that no better one could be devised, nor one which will tend in practice to render the medical service more continuously efficient.

THE RESIDENT MEDICAL STAFF.

Great diversity of practice prevails as to the constitution of this important branch of every hospital establishment. In the larger hospitals, with 250 beds or upwards, it is usual to have a principal medical officer or medical superintendent in addition to

at least two house physicians and two house surgeons, with a number of assistant house physicians and assistant house surgeons, or clinical assistants or dressers, as they may be respectively termed.

At the London hospitals, however, almost every variety of system may be met with. Thus, the oldest of the endowed hospitals, St. Bartholomew's, has four senior house physicians, five senior house surgeons, one ophthalmic house surgeon, one midwifery assistant, all of whom receive an honorarium of £25 per year, and are supplied with furnished apartments and attendance; but all have to provide themselves with board, there being no allowances. There are in addition, one senior and one junior assistant administrator of anæsthetics receiving £50 and £25 per year each respectively, and the same allowances as other residents. At St. Thomas's Hospital there is one resident medical officer and one resident surgical officer, receiving £100 a year each, with furnished apartments, board, and attendance, in addition to one obstetric officer, two house physicians, two house surgeons, and one dresser, who receive board and residence but no other emolument. At Guy's there is a medical superintendent, with a salary of £600 a year, house, coals, and gas; one resident medical officer for private paying patients, with a salary of £100 a year, board and lodging; two obstetric assistants, four house physicians, four house surgeons, and two surgeons' dressers, who receive board and lodging, but no salary. At the Westminster, the London, and the Charing Cross hospitals there are resident house physicians and house surgeons, who receive only board and lodging without salary, whilst at St. George's, the Middlesex, and University College hospitals there is a resident medical officer receiving a salary varying from £350 to £150, with board and lodging in addition. At the three latter institutions there are a number of house physicians and house surgeons, and obstetric medical officers, who receive board and lodging, but, with the exception of St. George's, each pays to the hospital a fee of 10 guineas on appointment, or one guinea per week for board and lodging during the term they hold office. Where there is a medical school attached to the hospital, it is usual to vest the appointment of the resident medical officers, who are unpaid, in the hands of the honorary medical staff. All paid officers, both medical and lay, are, however, usually elected by the Committees of Management either on the recommendation of the medical board, or from the list of candidates whose qualifications have been approved by the honorary medical and surgical officers.

REMUNERATION OF THE MEDICAL STAFF.

Although it is the practice to call all non-resident medical officers, without salary, honorary medical officers, as a matter of fact these gentlemen very often receive substantial emolument, either directly or indirectly, from their hospital appointments—directly in the case of those institutions which have medical schools, out of the fees paid by the students attending such schools; and indirectly by the reputation which their connection with the hospital brings as a natural consequence of their work.

It is well that these facts should be clearly understood by the public at large, because the cost of maintaining the voluntary hospitals is often very seriously increased from the circumstance that laymen on the hospital committees feel a delicacy in refusing to incur expenditure recommended by members of the honorary medical staff. We believe, as the result of prolonged investigation, an intimate knowledge of all the facts, and great practical experience, that if the voluntary hospitals were to determine that every medical officer, both resident and non-resident, should henceforth be paid for his services, the cost per bed at every institution which thus asserted its independence would be considerably reduced. The medical profession has rendered a great deal too much eleemosynary service in the past. The tendency of this practice has been to make it more and more difficult for medical men unattached to public institutions to maintain themselves and their families, whilst it has caused much unnecessary expenditure on the part of hospital committees, which would never have been sanctioned had all the medical staff been paid for the services which they rendered.

It would be wearisome to enter in detail into the many minute points embraced by the laws of a well-regulated hospital; we shall, therefore, content ourselves with adding to the foregoing information a brief statement as to the duties and emoluments of the two principal lay officers to be found in connection with the larger hospitals. They are, of course, respectively, the house governor and secretary or the secretary, and the matron or lady superintendent.

THE HOUSE GOVERNOR AND SECRETARY.

In those institutions where the chief authority is exercised by a layman, the post of house governor becomes necessarily

the most important one in the institution. All the resident staff are subordinate to the house governor, who has the power to suspend any officer at his discretion, and very frequently to engage and dismiss most, if not all, of the minor officials. He is the head of the executive, and responsible for the efficiency of every department, besides being charged with the duty of enforcing economy in all directions. His election is vested in the committee; he has to reside in the hospital, and is usually not permitted to absent himself from his duties, or to be away for the night, without the sanction of the house committee. He is made responsible for the good order and discipline of the whole institution, over all departments of which he exercises a general supervision, being charged with the enforcement of the bye-laws and standing orders. It is customary to invest him with the power to summarily dismiss any patient from the hospital, providing the patient is physically fit for removal. During the intervals between the meetings of the house committee, his is the authority to decide all questions of doubt and urgency, but it is his duty to report to the next meeting of the house committee. During his absence such portions of his duties as require immediate attention devolve upon the resident medical or surgical officer of oldest standing. He gives all orders for the supply of articles required in the hospital, and is responsible for the accuracy of all tradesmen's accounts, and for the proper keeping of the books, papers, and minutes. He has, further, to conduct the correspondence of the institution, and, as a rule, to perform all other duties which usually are required from a secretary. In the majority of the hospitals in the United Kingdom the administrative duties devolving upon the secretary, who is not given the title of house governor or superintendent, are comparatively few and unimportant. The secretary in such a case is really the finance officer, whose duties are to raise the necessary funds for the maintenance of the hospital, and to exercise, so far as he is able, a continuous check upon every item of the expenditure.

The chairman of Lord Sandhurst's Committee declared, as the result of three years' investigation into the working of the metropolitan hospitals, that "there were no class of men more intelligent or capable on the whole than the hospital secretaries of London at the present time." The knowledge which they possessed of everything which appertained to the institutions to which they were attached was as creditable as it was remarkable, and the intelligence which they displayed reflected the highest credit upon

this deserving class of public officials, to whom both the institutions and the public owe much more than they appear to be aware of. The emoluments of the house governor vary from £1,000 per annum, with a house, coal, gas, and taxes, to £300 per annum, with board and lodging. A secretary of a London hospital, who is non-resident, receives from £600 a year to £150 a year, according to the size of the institution. Having regard to the important duties which devolve upon the hospital secretaries, we are of opinion that their rate of remuneration in the majority of cases requires reconsideration, and that it is desirable to raise the maximum from £600 to £750 a year, where this officer is non-resident and the occupied beds amount to 200 and upwards.

There is no expenditure which pays better than that upon salaries, provided the committee are confident that they possess the services of an officer so capable, intelligent, and devoted to his duties, that it would be very difficult to replace him in case of a vacancy.

MATRON, OR LADY SUPERINTENDENT.

In the chapter on nursing we have said a great deal about the duties of the devoted women who hold this office in our public hospitals. It must suffice, therefore, to add that those committees are best advised who vest large powers in the hands of the matrons and lady superintendents, subject to a weekly report being made by these officers of everything which happens in their department, such reports being submitted each week for the information and endorsement of the house committee. The rate of remuneration paid in England to these officers is far less than that given by the best hospitals in the United States of America. It is usual, where a nursing institution is attached to the general hospital, to pay the matron and lady superintendent a relatively higher salary owing to the large addition to the duties which the private nursing establishment involves. At the larger London hospitals it is usual to give the matron £250 a year, and £100 a year extra as superintendent of the private nursing institution. In the majority of the hospitals to which medical schools are attached, the salaries vary from £150 to £100 per annum, with board, lodging, washing, and uniform, where uniform is insisted on. In the case of the smaller hospitals the remuneration varies from £100 to £70 per annum, with the usual allowances. The assistant matrons and night superintendents are paid from £85 to £30 a year, according

to the size of the hospital, with board, lodging, washing, and uniform. Very few, if any, hospitals, with 100 beds and upwards, now pay the matrons and lady superintendents less than £100 per annum, rising to £150 after lengthened service. At the special hospitals the salaries range from £100 to £50 per annum.

Since the passing of Hardy's Act the Poor-law infirmaries have been placed upon a basis which renders their internal administration in many cases as efficient as that of the voluntary hospitals. The rate of remuneration in these institutions varies from £150 to £80 a year, with board and lodging. The assistant matrons and night superintendents receive from £70 to £35 a year, with the usual allowances.

ELECTION OF COMMITTEES, AUDIT, AND UNIFORM ACCOUNTS.

It may be interesting to add that the committees of management at the voluntary hospitals throughout the world usually consist of from twenty to thirty members. As a rule the names of the whole committee are submitted for re-election at the annual meeting in each year. At the better managed institutions, however, it is customary for a third of the committee to retire each year, all of whom are usually eligible for re-election, although in several cases the laws provide that the retiring members shall be ineligible for one year. This latter regulation enables the governors to introduce new blood without any reflection upon the retiring members, and, on the whole, it works remarkably well. It is usual for the committees of management to elect from their number a finance and house committee, who meet weekly. The Board of Management usually meet only once a month, on which occasion they receive a report from the sub-committee.

Much attention has been directed to the audit of the accounts of hospitals in recent years. In the result, it is now customary to appoint a firm of chartered accountants to audit the books and accounts, but experience shows it is desirable, in the best interests of the hospitals, to associate with them one of the governors as co-auditor, who is thus able to examine and pass the accounts with an accurate knowledge of the requirements and technicalities which it is desirable to bear in mind when preparing such documents for publication.

Another burning question is the enforcement of a uniform system of accounts for the adoption of all hospitals supported by voluntary contributions. Last year the distribution committee of

the Metropolitan Hospital Sunday Fund assembled the secretaries of the principal hospitals, and in the result a uniform system of accounts was prepared and adopted, which is now recommended to all the hospitals by the Council of the Metropolitan Hospital Sunday Fund. This system of hospital accounts adapts itself readily to the books usually kept by all well-regulated hospitals, and we look forward to the time when it will be recognised to be the best system, and when all the most reputable hospitals, at any rate, will decline to keep their accounts on any other system. Full particulars of the system referred to and of the necessary books will be found in Burdett's "*Hospital Annual*," 1891-92, published by The Scientific Press, Limited.





APPENDIX.

(A.)

THE OUT-PATIENT QUESTION.

WE have thought it would be useful and tend in the direction of re-awakening and fixing public attention to the evils of the out-patient department, the stern necessity which undoubtedly exists for the application of drastic remedies, and the steps already taken to secure a Central Hospital Board for London, to reprint here the conclusions of—

(a) The Committee appointed in 1870 to inquire into the subject of out-patient hospital administration in the metropolis, of which the late Sir William Fergusson, Bart., F.R.S., was chairman, and

(b) The Birmingham Hospital Reform Inquiry Committee, 1891, of which his Honour Judge Chalmers was chairman.

(c) An account of the House of Lords' Committee and the Central Hospital Board Movement.

SIR WILLIAM FERGUSSON'S COMMITTEE.

On February 26, 1870, a private meeting was held of some who were interested in the question of out-patient hospital administration, to take into consideration the abuses which obtained in that department of charitable relief, in order, if possible, to promote a movement for their reform. In consequence of that meeting a notice was sent to upwards of three hundred members of the medical profession resident in the metropolis, including all those holding out-patient appointments in the various hospitals and dispensaries. At the meeting thus convened, at which Sir

William Fergusson, Bart., F.R.S., presided, 156 members of the medical profession were present. It was resolved :—

1. That there existed a great and increasing abuse of out-door relief at various hospitals and dispensaries of the metropolis, which urgently required a remedy.

2. That in the opinion of the meeting, the evils inseparable from the system of gratuitous medical relief administered at the out-door department of hospitals, and in free dispensaries, can be in a great measure met by the establishment, on a large scale, of provident dispensaries, not only in the metropolis, but throughout the kingdom, and by improved administration of Poor-law medical relief.

A committee was therefore appointed to investigate the working of out-patient departments, as then constituted, and to draw up suggestions for reform. This committee commenced its duties by appointing four sub-committees, to examine and report on, respectively : 1. General hospitals. 2. Special hospitals. 3. Free and provident dispensaries. 4. Poor-law dispensaries.

Each sub-committee consisted of five members, who were so selected that while each of the four departments had a representative, two were especially chosen to represent the particular work which the sub-committee had in hand. The four reports thus prepared were carefully considered by the Committee appointed at the public meeting, and were subsequently published as appendices to the report of that Committee. In the result, the Committee were unable to arrive at a unanimous opinion with regard to the question of payments by patients, a minority strongly maintaining its advisability, while the majority dissented from that view. The following resolutions embody, in a brief form, the conclusions arrived at by the Committee, who believed them to be based on sound principles and to be such as would secure adequate medical attendance and advice for the necessitous poor, while tending to raise the standard of self-help and independence amongst those who are not, and ought not to be, in need of gratuitous advice in sickness.

THE RESOLUTIONS OF SIR WILLIAM FERGUSSON'S COMMITTEE.

1. That an improved administration of Poor-law medical relief, in accordance with the Metropolitan Poor Act of 1867, was essential to the reform of the out-patient administration of the metropolis.

2. That in furtherance of the first resolution, and in order to limit the pauperising tendency of the present system of gratuitous relief at hospitals and dispensaries, all free dispensaries should be under the control of the Poor-law authorities, so that a proper system of inquiry might be instituted previous to the administration of gratuitous medical relief.

3. That, in order to encourage a feeling of self-respect among the working classes, and that they may secure for themselves during health the necessary medical attendance in sickness, it was desirable that the

system of provident dispensaries should be largely extended, both by the conversion of the present free dispensaries, and by the foundation of others.

(Ever since the issue of this report in 1871, numerous attempts have been made to give practical effect to these resolutions. Experience proves, however, that a provident dispensary, to be successful, must be managed locally, and must secure the interest and support of a few of the leading general practitioners of the district where it is situated, who bind themselves to give special attention to the requirements of its members. Consequently, all attempts to work provident dispensaries by a central board dealing with the whole metropolis, have proved to be impracticable.)

4. That, for the reasons given in the third resolution, and in order to improve the clinical teaching of the out-patient department of the general and special hospitals, it was very desirable that the unrestricted system of gratuitous relief at these institutions should be curtailed, partly by the selection of cases possessing special clinical interest, and partly by the exclusion of those who, on social grounds, are not entitled to gratuitous medical advice.

5. That the practice of receiving payments for medicine or medical advice from the out-patients of hospitals was undesirable.

6. That the governors of hospitals ought in all cases to provide some honorarium for the staff of the out-patient departments.

7. That a committee be appointed to memorialise the President of the Poor-law Board, the governors of the various metropolitan medical charities, and the society for organising charitable relief, to assist in carrying the foregoing resolutions into effect, and to take such other steps as they may think requisite.

BIRMINGHAM HOSPITAL REFORM INQUIRY COMMITTEE.

In October 1889, a preliminary committee of members of the medical profession in Birmingham and its neighbourhood prepared a report on the working of the voluntary hospital system in Birmingham. This report represented that the original purpose of the medical charities had been widely departed from; that as a result of this departure, the demands made upon them were greater than they could adequately meet, and were increasing from year to year; that a constantly increasing proportion of the community were depending upon charitable medical relief in times of sickness, rather than on providence and self-help, and that this was unjust to the subscribing public, injurious to the recipients themselves, and an imposition upon the medical profession; that, in order to bring about a better state of things, the voluntary hospital system needed to be reorganised, so that, on the one hand, it might work harmoniously with and supplement the Poor-law system, and on the other hand, it might encourage, and not hinder, as it then did, the development of provident institutions and the medical treatment of the industrial classes.

This report was submitted to a large and influential meeting of the medical profession, held on the 20th November, 1889. All members of the medical profession within twenty-five miles of Birmingham were invited to attend the meeting; ninety members were actually present, and, in the result, it was resolved unanimously that the foregoing conclusions deserved the serious attention of the public and the administrators of the medical charities. A conference between representatives of (*a*) the general and special hospitals; (*b*) the general dispensaries; (*c*) the Hospital Sunday and Hospital Saturday Fund Committees; (*d*) the Board of Guardians; (*e*) the existing provident dispensaries; (*f*) the Charity Organisation Society; and (*g*) the general body of the medical profession—was, therefore, imperatively called for. A committee was elected, in consequence, to appoint a deputation to wait upon the Mayor, and to invite him to arrange for such a conference, or to take such other steps as might seem to him advisable. Alderman Clayton, who was then Mayor of Birmingham, consequently convened as suggested a meeting of representatives, which was held on the 15th January, 1890. This meeting was very largely attended, and, in the result, a Committee, the constitution of which was left to the Mayor, was appointed to inquire into the question of the medical treatment of the poorer classes, and to report, with any suggestions as to desirable reforms, to a future meeting of the conference. The Mayor nominated his Honour Judge Chalmers as chairman of the Committee of Inquiry, and requested the various institutions to elect representatives, which they accordingly did. They held seventeen meetings, issued a tabular list of seventeen questions asking for certain statistical information, and took the evidence of several medical men, managers of hospitals, and other gentlemen who had studied the question closely. They found that the number of patients treated by the Birmingham hospitals in 1867 was, in round numbers, 67,000; in 1877 the number had increased to 107,000; and in 1887 the number had further increased to 166,000. Making allowance for certain sources of fallacy, the Committee estimated from these figures that, at the time of inquiry in 1890, about one-third of the population of Birmingham, apart from the pauper class altogether, received gratuitous medical treatment in the course of each year. They reported an admirable system of medical out-relief in connection with the Poor-law, which included three medical stations, and provided that patients could be attended either there, or, when necessary, at their own homes.

After going fully into the various aspects which the problem submitted to them presented, the Committee formulated three methods of reform:—

First, the formation of a general council, on which all the hospitals should be represented, together with the managers of the Hospital Saturday and Sunday Funds, the general dispensary, the Corporation of the City—as responsible for the City Hospital—and the Poor-law guardians as responsible for the Infirmary and out-door medical relief. In this way, the

general council might fully reflect the opinions of all the public medical institutions in Birmingham. Such a council would enable the hospitals to compare views and experience of all matters relating to hospital administration, and to support each other in making such regulations as might seem advisable for the admission of patients, and the exclusion of unfit cases. The functions of this council were to be almost purely consultative ; it would have no power of enforcing its opinions on individual institutions, except in so far as it could bring public opinion to bear on them. It seemed to be the opinion of the Committee that this council should, however, have certain controlling powers over the hospitals, such powers being obtained from the Legislature.

The second remedy was that an inquiry agency should be formed in connection with the hospitals for the purpose of investigating the financial means and position of applicants for hospital treatment.

(We have pointed out as to this, that the English system fails by setting about this branch of its work in the wrong way. Instead of inquiring into the circumstances of the patients who apply for relief, each institution should insist that every patient should produce evidence of his or her fitness to receive free medical relief, before such aid is granted at all, except in cases of extreme urgency.)

The third method of reform suggested for consideration was, that the Committee should recommend the formation of a self-supporting provident institution, extending its operations over the whole area of Birmingham by means of branch establishments. The Committee, however, did not favour this view, unless or until the working classes themselves demanded it, especially as their medical needs could probably be better met by a variety of independent organisations, kept up to the mark by healthy competition with each other, and, by their very variety, adapting themselves to individual wants.

(It will be seen that the Birmingham Committee, after full inquiry, arrived practically at the same conclusion which we have expressed in our note to the third resolution of Sir William Fergusson's Committee.)

Judge Chalmers' Committee recommended :—

- (1) The formation of a general council, as explained above.
- (2) The formation of an inquiry agency to investigate the circumstances of applicants for treatment at the hospitals.
- (3) That, apart from first aid and urgent cases, regulations should be framed by the hospitals to exclude trivial cases, and cases where either the patients are in the position to pay for such treatment as they may require, or could be more properly dealt with under the Poor-law.
- (4) That facilities should be given for cases so excluded to be dealt with by (Poor-law) dispensaries or provident associations.
- (5) That any person recommended by an approved provident association, or by a qualified medical practitioner, should, as a rule,

be admitted to the out-patient departments of the hospitals without further formality.

The Committee consisted of nine members, all of whom signed the report, but four of whom added several riders, dealing with special points, which do not call for comment in this place. Unfortunately, so far as any collective action on the part of the hospitals and kindred institutions is concerned, the recommendations of Sir William Fergusson's Committee and of the Birmingham Committee have, for practical purposes, remained a dead letter. As we have pointed out elsewhere, the key to the wise solution of the grave dangers and serious difficulties which confront the managers of our medical institutions can never be dealt with effectually until active co-operation is established between the representatives of each medical institution in every large centre of population throughout the country.

THE HOUSE OF LORDS' COMMITTEE AND A CENTRAL BOARD.

In the third and final Report of the Committee of the House of Lords appointed to inquire into the administration of the London hospitals, Poor-law infirmaries, dispensaries, and kindred institutions, the appointment of a Central Board representative of all the hospitals is suggested. We have explained in the Introduction to the present volume the duties which it is proposed should devolve upon such a Central Board. Soon after the issue of the Report of the Lords' Committee, Lord Sandhurst, who was the chairman of it, summoned a conference of persons interested in the medical charities, to Spencer House, on the 22nd July, 1892. At this conference of hospital authorities, medical men, and others, it was unanimously resolved that "A Committee of this Conference be appointed to take into consideration the conclusions arrived at by the Lords' Committee on Metropolitan Medical Relief, and to report to a future Conference."

The following gentlemen were appointed members of this Committee : Mr. Reginald B. Acland, Chairman of the Hospital Saturday Fund ; Mr. Bousfield ; Mr. Henry C. Burdett ; Sir Andrew Clark, Bart., F.R.S., President of the Royal College of Physicians ; Mr. Joseph Diggle, Chairman of the London School Board ; Sir Douglas Galton, K.C.B., F.R.S. ; Mr. Arthur Lucas ; Lord Sandhurst ; Mr. J. A. Shaw-Stewart ; Sir Sydney Waterlow, Bart., Vice-President of the Metropolitan Hospital Sunday Fund ; with power to add to their number. The Committee held a meeting early in November 1892, and appointed a smaller committee to draw up a scheme for discussion. It will thus be seen that prompt action has been taken upon the Report of the Lords' Committee ; but what the outcome will ultimately be remains to be seen.

(B.)

FORMS IN USE AT THE EDINBURGH ROYAL INFIRMARY.

MONTHLY RETURN * OF THE CONSUMPTION OF WINES, SPIRITS, MALT LIQUORS, AND AERATED WATERS.

18__

	No. of Ward.	Mean No. of Beds Occupied.	Medical Officer.	Total Consumption.				Consumption per Bed.			
				Wine, Ounces.	Spirits, Ounces.	Malt Liquors, Pints.	Aerated Waters, Pints.	Wine, Ounces.	Spirits, Ounces.	Malt Liquors, Pints.	Aerated Waters, Pints.
SURGICAL HOSPITAL including private rooms.	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
	11										
	12										
	13										
	14										
	15										
	16										
	17										
	18										
	19										
	20										
	21										
MEDICAL HOSPITAL.	F.H.										
	22										
	23										
	24										
	25										
	26										
	27										
	28										
	29										
	30										
	31										
	32										
	33										
	Obs.										

TOTAL CONSUMPTION (EXCLUDING FRACTIONAL PARTS).

WINE, Gallons, _____ : SPIRITS, Gallons, _____ :

MALT LIQUORS, Doz. Quarts, _____ : AERATED WATERS, Doz. _____

N.B.—The number of Beds occupied in each Ward is compiled from the Weekly Census—the quantities above stated include both daily and occasional Orders.

If any error is found to have been made in the accompanying Summary of the detailed Accounts, it is particularly requested that notice thereof be at once sent to the Superintendent.

* A copy of this Return is furnished monthly to the Superintendent and principal Physicians and Surgeons.

MONTHLY RETURN OF THE CONSUMPTION OF BUTCHER'S MEAT, AND
EXTRA ARTICLES OF DIET,

FOR

	No. of Ward.	Daily Average of occupied Beds.	Medical and Surgical Officers.	Consumption per Ward.			Consumption per Bed.		
				Butcher Meat, lbs.	Eggs, No.	New Milk, Pints.	Butcher Meat, lbs.	Eggs, No.	New Milk, Pints.
SURGICAL HOSPITAL.	1								
	2, 3								
	4, 5								
	6								
	7, 8								
	9								
	10, 11, 12								
	13, 14								
	15								
	16								
	17, 18								
	19								
	20, 21								
MEDICAL HOSPITAL.	22								
	23								
	24								
	25								
	26								
	27								
	28								
	29								
	30								
	31								
	32								
	33								
							General Average.	General Average.	General Average.
	Total Consumption ...								

DAILY ISSUE BOOK FOR WINE

From		PORT.							SHERRY.				WHISKY.									
PATIENTS' NAMES.		Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednesday.
1																						
2																						
3																						
4																						
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17																						
18																						
19																						
20																						
21																						
Resident Physician or Surgeon.		Total for Thursday																				
		" " Friday																				
		" " Saturday																				
		" " Sunday																				
		" " Monday																				
		" " Tuesday																				
		" " Wednesday																				
		" " The Week							Ounces.....	Ounces.....				Ounces.....								

(C.)

EXPENDITURE ON MAINTENANCE AT THE
EDINBURGH ROYAL INFIRMARY.

Expenditure for Articles of Maintenance at the Edinburgh Royal Infirmary in 1889.

	£	s.	d.
Bread (53,640 loaves)	1,045	0	0
Biscuits	38	8	8
Flour	33	0	4
Butcher's meat (viz. beef and mutton, 1,530 cwt. 3 qrs. 27 $\frac{3}{4}$ lbs. £4,433 5s. 9d. ; ham and bacon &c. £433 19s. 10d. ; preserved meats &c. £61 10s. 1d.)	4,928	15	8
Oatmeal	170	19	0
Barley	35	4	0
Milk (58,846 gals. sweet milk, and 6,490 gals. butter milk)	2,395	2	2
Butter	883	9	11
Cheese	75	9	1
Eggs	418	8	1
Tea	683	18	8
Coffee and cocoa	147	6	7
Sugar	250	13	4
Rice, arrowroot, &c.	69	15	5
Poultry and game	885	3	3
Fish	252	3	0
Vegetables	275	2	7
Confections, fruit, pickles, spices, &c.	148	13	8
Salt	13	10	6
Beer and aerated waters	94	12	10
Ice	6	7	0
	<u>£12,851</u>	<u>3</u>	<u>9</u>

*Cost and Quantities of Principal Commodities per Occupied Bed per Year
at the Edinburgh Royal Infirmary.*

(Average daily number of Patients in 1889, 634.)

					1889.			
					Quantities.	Cost.		
						£	s.	d.
Bread	...	...	...	...	338 lbs. 4 oz.	1	12	11
Meat	...	...	...	...	270 lbs. 10 oz.	6	19	6½
Sweet milk	...	...	...	...	92 gallons	3	13	5½
Butter	...	...	...	...	24 lbs. 5 oz.	1	6	2½
Tea	...	...	...	...	12 lbs. 8 oz.	1	1	7
Coffee	...	...	...	...	4 lbs. 7 oz.	0	4	7¾
Sugar	...	...	...	...	48 lbs. 15 oz.	0	7	10¾
Other articles, including poultry, vegetables, &c.	...	...	eggs,	fish,	...	4	19	2
Total Maintenance	...	...	...	...	...	20	5	4½

NOTE.—The expenditure on maintenance, as shown above, includes the whole consumption in the hospital, both by the patients and the staff.

(D.)

TENDER FOR SUPPLIES.

[THE following form of tender will be common to each article, or class of articles, used in hospitals. We have therefore not thought it necessary to repeat it in every case, but have contented ourselves with giving first the form of tender and then the form of specification for each article or class of articles.]

TENDER FOR _____.

To the Committee of Management of the _____ Hospital.

18

[I *or* we] do hereby Tender to supply the _____ Hospital with the under-mentioned Articles, or any one or more of them at the option of the Committee, at the prices hereinafter stated, during the [six *or* twelve] months ending _____, 18__ next.

SPECIFICATION.

[Here must be inserted the Specification of the particular articles to be tendered for. These Specifications are set out on pages 913-917.]

Should this Tender be accepted [I *or* we] hereby undertake to deliver the Articles contracted for at [my *or* our] own expense, in such quantities, and at such times, as the Secretary, or other proper authority of the Hospital for the time being, shall from time to time direct, and of such quality as shall be to his entire satisfaction, or of the person appointed by him to inspect the same. If any of the said Articles shall be found inferior, or not to the entire satisfaction of the Secretary, or if [I *or* we] should fail to deliver them from time to time when ordered, [I *or* we] hereby consent and agree that the said Secretary, or the person appointed by him, shall be at liberty (without impeding or lessening the force and validity of this Contract) to obtain such Articles of proper quality from any person he may think fit, and that the difference in price (if any), as well as all attendant and incidental costs and expenses, shall be borne and paid by [me *or* us], or may be deducted from any money hereafter payable to [me *or* us], and, further, that upon recurrence of such irregularity, or upon the repeated failure in any of these Conditions, the Committee of Management shall at all times have the power to terminate the Contract whenever to them it may appear desirable, without prejudice to the liability of the Contractor for breach of Contract up to such time. [I *or* we] undertake that this Contract, or any part, share, or interest in it, shall not be transferred or assigned by [me *or* us] either directly

or indirectly, to any person or persons whomsoever, without the written consent of the Committee.

Any notice shall be deemed to be sufficiently served on [me or us] if given or left at [my or our] usual or last place of abode or business.

Payments to be made quarterly.

Sixpenny

Signature

Agreement

Stamp.

Address

Accepted for

On behalf of the Committee of Management,

Chairman.

Date 18

The Committee do not bind themselves to accept the lowest or any Tender. They also reserve to themselves the right to terminate this Agreement if the Contractor, or any servant or person acting for him, give, or attempt to give, any fee, reward, or gratuity of any kind whatever, to any Officer or Servant of the Hospital.

All communications by letter are to be addressed to "The Secretary."

TENDER FOR BREAD, FLOUR, AND MEAL.

SPECIFICATION.

Best Household Bread, well and properly baked and cooled, unadulterated and free from alum, in Loaves of 4 lbs. each at	per stone of 14 lbs.
Best Seconds Flour, clean and free from grit, without any adulteration whatever "	per stone of 14 lbs.
Best Scotch Oatmeal, do. do. "	per stone of 14 lbs.

To be delivered as required.

TENDER FOR COAL AND COKE.

SPECIFICATION.

Best Household Coal, either Hartley's, Hetton's, Lambton's, Pelton's, or Stewart's, thoroughly screened and free from small pieces, dust, or slate, and to produce the pit certificate for the same at per ton.

Best Gas Coke „ per ton.

Small Coal „ per ton.

To be delivered as required.

TENDER FOR EGGS, BUTTER, &c.

SPECIFICATION.

Eggs, good, fresh, of an average weight of 2 ozs.

each at per 100 of 6 score.

Butter, best salted „ 80 lbs.

Bacon, good mild „ 60 lbs.

Cheese, best American „ 14 lbs.

To be delivered as required.

TENDER FOR FISH.

SPECIFICATION.

Good, fresh, wholesome Fish, either Brill, Cod,

Haddock, Herring, Mackerel, Plaice, Soles,

Turbot, or Whiting, properly cleaned and

trimmed without head, tail, or offal at per diet of 8 ozs.

To be delivered as required.

TENDER FOR GROCERIES.

SPECIFICATION.

Sugar, Loaf, cut for table at	per cwt.
„ Demerara „	„
Rice, Whole „	„
Salt, ordinary Table „	„
Coffee, fresh ground „	per 14 lbs.
Cocoa, ground Nibs „	„
Pearl Barley „	„
Sago, Large Pearl „	„
Tapioca, Best Pearl „	„
Pepper, Black, Ground „	„
Raisins, Valencia „	„
Currants, dried „	„
Candied Peel—Lemon, Orange, or Citron ... „	„
Mustard, ground „	per 9 lbs.
Vinegar, Pure Malt „	per gallon
Brand's Essence of Beef, 4 oz. tins „	per dozen
Corn Flour, Brown & Polson's, in 1 lb. packets ... „	„
Baking Powder, Borwick's „	per box of 1 lb.
Egg Powder, Freeman's „	„ 1 gross.
Sauces—Catsup, Worcester, or Harvey's, $\frac{1}{2}$ -pint bottles „	per dozen
Tea, from 1/6 to 1/10 per lb., as per samples ... „	per lb.

To be delivered as required.

TENDER FOR MEAT.

SPECIFICATION.

All meat to be town killed and of the prime quality, properly dressed and trimmed. Ox Beef and Wether Mutton.

Legs of Mutton (8 to 10 lbs. weight) at	per lb.
Shins of Beef (without bone) „	„
Stickings of Beef (thick end without bone or fat) „	„
Sirloins of Beef „	„
Loins of Mutton „	„
Rounds of Beef, Silver Side (without bone) salted „	„
Rounds of Beef, Top Side (without bone) fresh ... „	„

Shoulders of Mutton	...	...	...	...	at	per lb.
Necks of	"	...	...	...	"	"
Ribs of Beef	...	...	...	...	"	"
Briskets of Beef (with bone) salted	...	...	...	...	"	"
" " (without bone) fresh	...	...	...	...	"	"
Mutton Chops	...	...	...	...	"	"
Beef Steaks	...	...	...	...	"	"
Veal	...	...	...	...	"	"
Suet	...	...	...	...	"	"
Calves' Liver	...	...	...	...	"	"
Lamb	...	...	...	...	"	"
Pork, Legs or Loins	...	...	...	...	"	"
Sheep's Kidneys	...	...	...	...	"	"

To be delivered as required.

TENDER FOR MILK.

SPECIFICATION.

Good, genuine, unadulterated New Milk, to produce, at the least, 10 per cent. of cream when tested by a lactometer at per imperial gal.

To be delivered as required.

TENDER FOR POTATOES.

SPECIFICATION.

Best Ware Potatoes, dry and mealy, of the best quality, free from earth, of equal size, of one sort or description, and not more than six to the lb. in weight at per cwt. of 112 lbs.

To be delivered as required.

TENDER FOR POULTRY.

SPECIFICATION.

Each bird to be properly plucked and drawn, and to be not less than 24 ozs in weight when dressed for cooking.

Ducks	...	...	...	...	...	at	each.
Fowls	...	...	...	...	...	"	"

To be delivered as required.

TENDER FOR VEGETABLES.

SPECIFICATION.

Good, sound, fresh-gathered Vegetables, well trimmed and stripped of their outer leaves, and in a fit and proper state for cooking.

Cabbages or Greens	...	...	...	...	at	per cwt.
Carrots	...	...	...	...	"	"
Parsnips	...	...	...	...	"	"
Turnips	...	...	...	...	"	"
Onions	...	...	...	...	"	"
Leeks	...	...	...	...	"	"
Celery	...	...	...	...	"	"
Lemons	...	...	...	...	"	per dozen.

To be delivered as required.

(E.)

REPORT OF COOKING SCHOOL IN CONNECTION WITH
THE JOHNS HOPKINS HOSPITAL, BALTIMORE, UNITED
STATES OF AMERICA.

"The organisation of the cooking school resembles that of a ward with its head nurse and pupils, the teacher corresponding to the head nurse. Two pupils are sent to her for a month at a time. Their hours for duty are from 7.30 A.M. to 5.30 P.M. The first hour and a half of the day is spent in the two private wards, where each pupil takes charge of the preparations for breakfast, makes the toast, arranges the trays daintily and gets everything in readiness for the breakfast, which arrives from the general kitchen at eight o'clock. They then serve the trays and leave the wards at 9 A.M., going directly to the cooking-school kitchen, which is in a small room conveniently situated and easily accessible to all the wards. There they meet the teacher and the day's instruction begins.

"The course includes the general subject of the preparation of beef essences, beef teas, broiled meats, steaks, chops, and birds, gruels, porridges, mushes, drinks, jellies, toasts, soups, broths, oysters, eggs, potatoes, custards, sherbets, creams, frozen fruits, cordials, salads, koumiss, and all simple dishes, such as baked apples, plain boiled rice, &c. &c. The beef tea, chicken broth, and mutton broth for the use of the entire hospital are made each morning, and in addition practical demonstrations of the process of making dishes selected from the above schedule are given by the teacher every forenoon. The method of preparing about 150 different articles of sick diet is taught during the month, and each article is made at least three times by the pupils themselves. The greater part of the day's cooking is distributed among the various wards at noon.

"The afternoon hours are chiefly devoted to theoretical teaching, which includes, for example, talks on the effect of heat on food; the effect of cold; fire; the chemistry of foods; oxygen; the composition of air; water; the cooking of water; the mineral and organic matter in the same; albumen; and methods of serving food. All notes, lectures, and recipes are written out in full.

"Towards the end of the month a practical test is given of the proficiency of each pupil by requiring her to make as large a number of dishes as possible, without aid from either teacher or notes. An oral examination is given at the end of the course, and this is followed at the end of another month by a written test.

Report of Cooking School, Johns Hopkins Hospital. 919

"The following questions will serve as examples of an oral examination :—

1. Why is bread, improperly toasted, unwholesome ?
2. What is the chemical composition of an egg ?
3. Give some of the best ways for cooking oysters.
4. Upon what does the nutritive value of a diet depend ?

"The following are examples of a written examination :—

1. Write out a rule with reasons for broiling steak.
2. What are the most easily assimilated foods ?
3. Illustrate, by several examples, the fact that nutritious, palatable, and attractive dishes may be made with inexpensive materials."

(F.)

DIET TABLES.

LONDON HOSPITAL.

ADMISSION DIET.*

10 ozs. Bread.
2 pints Milk.
1 pint Soup.†

(FOR CHILDREN.)

7 ozs. Bread.
1 pint Milk.
 $\frac{1}{2}$ pint Soup.‡

FULL DIET.

10 ozs. Bread.
8 ozs. Potatoes.
6 ozs. Meat (Roast or Boiled Leg or Shoulder of Mutton, or Roast Beef).‡
1 pint Milk.§

MIDDLE DIET.

10 ozs. Bread.
8 ozs. Potatoes.
4 ozs. Meat (Roast or Boiled Leg or Shoulder of Mutton, or Roast Beef).‡
1 pint Milk.§

NOTE.—For patients requiring it, whether on Admission, Full, Middle or Special Diet, 1 pint of Soup † is allowed for Supper. (Children are not included in this arrangement.)

FEVER DIET.

2 pints Milk.
1 pint Beef Tea.

CHILDREN'S DIET.

7 ozs. Bread.
6 ozs. Potatoes.
2 ozs. Meat.‡
1 pint Milk.

HYDROCARBON DIET.

10 ozs. Bread.
4 ozs. Fat Bacon.‡
1 pint Milk.

Pudding (1 oz. Arrowroot, Yolk of 2 Eggs, 1 pint Milk).

DIABETIC DIET.

6 ozs. Gluten Bread.
6 ozs. Meat Roast or Boiled Leg or Shoulder of Mutton, or Roast Beef).‡
‡ Gluten Bread Pudding.
Watercress.

RECIPE for Gluten Bread Pudding—

Soak 1 oz. Gluten Bread in $\frac{1}{2}$ pint Milk for an hour, beat up with an Egg, and 1 oz. Gluten Flour, then put the Mixture into a mould and bake.

SPECIAL DIETS.

Mutton Chops † (weight 8 ozs.
Beef Steaks † uncooked).
Fish (10 ozs. uncooked).

In each case with 10 ozs. Bread, 8 ozs. Potatoes, and 1 pint Milk.§

EXTRAS.

Mutton Chops	when specially ordered,																						
Beef Steaks	in addition to particular																						
Fish	diets.																						
Beef Tea	16 ozs. Meat to the pint.																						
Mutton Broth	10 ozs. do. do.																						
Veal do.	10 ozs. do. do.																						
Puddings	<table border="0"> <tr> <td>(Rice</td> <td>Green Vegetables.</td> </tr> <tr> <td>Light</td> <td>Watercress.</td> </tr> <tr> <td>Tapioca</td> <td>Wines.</td> </tr> <tr> <td>Sago</td> <td>Spirits.</td> </tr> <tr> <td>Suet, as ordered</td> <td>Lemonade.</td> </tr> <tr> <td></td> <td>Aerated Water.</td> </tr> <tr> <td></td> <td>Coffee.</td> </tr> <tr> <td></td> <td>Cocoa.</td> </tr> <tr> <td></td> <td>Gruel.</td> </tr> <tr> <td></td> <td>Oatmeal Porridge.</td> </tr> <tr> <td></td> <td>Arrowroot.</td> </tr> </table>	(Rice	Green Vegetables.	Light	Watercress.	Tapioca	Wines.	Sago	Spirits.	Suet, as ordered	Lemonade.		Aerated Water.		Coffee.		Cocoa.		Gruel.		Oatmeal Porridge.		Arrowroot.
(Rice	Green Vegetables.																						
Light	Watercress.																						
Tapioca	Wines.																						
Sago	Spirits.																						
Suet, as ordered	Lemonade.																						
	Aerated Water.																						
	Coffee.																						
	Cocoa.																						
	Gruel.																						
	Oatmeal Porridge.																						
	Arrowroot.																						
Eggs.																							
Rusks.																							
Bread	in addition to Diet																						
Milk	quantities.																						
Porter.																							
Ale.																							

‡ Recipes for Puddings—(the quantities being sufficient for 4 Patients).

RICE.—4 ozs. Rice, 2 ozs. Sugar.
LIGHT. 6 Eggs, 2 ozs. Sugar, $\frac{1}{2}$ oz. Flour.
TAPIOCA. 2 ozs. Tapioca, 2 ozs. Sugar, 4 Eggs.
SAGO.—2 ozs. Sago, 2 ozs. Sugar, 4 Eggs.

Milk (in each case) sufficient to make up 1 quart of the mixture.

SUET.—6 ozs. Suet, 1 lb. Flour, Water sufficient to make a stiff paste.

* N.B.—Patients on being admitted are to be put on "Admission Diet," unless otherwise ordered.

† Soup for Admission Diet or for Supper is made from 4 ozs. of Beef or Mutton to the pint, with a full supply of Vegetables.

‡ NOTE.—The Meat is weighed when cooked; full allowance being made for bone.

§ Unless Porter be ordered, instead of Milk, by the Physician or Surgeon, or his representative (viz.: For Full Diet 1 pint; for Middle Diet $\frac{1}{2}$ pint).

The rotation is as under—

SUNDAY	Boiled Mutton.	THURSDAY	Boiled Mutton.
MONDAY	Roast Mutton.	FRIDAY	Roast Beef.
TUESDAY	Roast Beef.	SATURDAY	Roast Mutton.
WEDNESDAY	Roast Mutton.		

§-§ The Hospital does not provide Tea, Sugar, or Butter for Patients.

HALIFAX INFIRMARY.

	Plain Diet.			Full Diet.	
	Milk Diet. Adults and Children.	Adults.	Children.	Adults.	Children.
Breakfast, 7.45.		Buttered Bread, 1 Pint of Tea.	Porridge and Milk, or Boiled Milk, Buttered Bread.	Buttered Bread, 1 Pint of Tea.	Porridge and Milk, or Boiled Milk, Buttered Bread.
Lunch, 11.		1 Pint of Broth.	$\frac{1}{2}$ Pint of Broth.		
Dinner, 12.15. Sunday	3 Pints Milk.	Rice Pudding.	Rice Pudding.	Roast Beef, Potatoes and Cabbage, Rice Pudding.	Roast Beef, Potatoes, Rice Pudding.
Monday	3 Pints Milk.	Tapioca Pudding.	Tapioca Pudding.	Roast Mutton, Potatoes, Tapioca Pudding.	Roast Beef, Potatoes, Tapioca Pudding.
Tuesday	3 Pints Milk.	Rice Pudding.	Rice Pudding.	Broth, Boiled Beef, Potatoes.	Broth, Boiled Beef, Potatoes.
Wednesday	3 Pints Milk.	Sago Pudding.	Sago Pudding.	Roast Beef, Potatoes, Tapioca Pudding.	Roast Beef, Potatoes, Tapioca Pudding.
Thursday	3 Pints Milk.	Rice Pudding.	Rice Pudding.	Stew, Potatoes, Rice Pudding.	Stew, Potatoes, Rice Pudding.
Friday	3 Pints Milk.	Tapioca Pudding.	Tapioca Pudding.	Fish, Parsley Sauce, Potatoes, Tapioca Pudding.	Fish, Parsley Sauce, Tapioca Pudding.
Saturday	3 Pints Milk.	Rice Pudding.	Rice Pudding.	Boiled Beef, Potatoes, Carrots, Turnips, Rice Pudg.	Boiled Beef, Turnips, Potatoes, Rice Pudg.
Tea, 5.		Jam with Bread or Buttered Bread, 1 Pint of Tea.	Jam with Bread or Buttered Bread, $\frac{1}{2}$ Pint of Milk.	Jam with Bread or Buttered Bread, 1 Pint of Tea.	Jam with Bread or Buttered Bread, $\frac{1}{2}$ Pint of Milk.
Supper, 7.		Boiled Milk and Bread.	Boiled Milk and Bread.	Boiled Milk and Bread.	Boiled Milk and Bread.

(G.)

SISTERS' RULES, CHARING CROSS HOSPITAL, LONDON.

(1) The Sisters shall be appointed by the Council in consultation with the Lady Superintendent. All applications must be made in the prescribed form.

(2) A Sister at the date of appointment must not be under twenty-six nor above forty years of age, and must be unmarried or a widow without children dependent on her.

(3) She must have received at least three years' training in a general hospital, and must produce evidence of good character, sound health, and ability to perform the duties of the office.

(4) She is to carry out all orders and directions as to the care and nursing of the patients given by the medical and surgical staff, including the resident officers.

(5) She is to have charge of and be responsible for all linen, bedding, furniture, and appliances used in her ward according to the inventory furnished to her. Any loss or breakage is to be immediately reported to the Lady Superintendent.

(6) She is to have the control of the nursing and domestic staff employed in her ward, to see that they carry out their duties punctually and efficiently, and to report at once to the Lady Superintendent any neglect or breach of rules.

(7) She is to guard against all extravagance and waste in food, fuel, light, surgical dressings, and all other articles.

(8) She is to take care that the bedding and linen are kept clean and in good repair, to pay particular attention to the personal cleanliness of the patients, to see that they are properly washed, that they have a sufficiency of clean clothes, and that those who are helpless are specially cared for.

(9) She is to see that the beds are made regularly every morning, that clean bedding is supplied when necessary, that all kinds of foul linen and dressings are immediately removed, that the ward with its adjacent passages, scullery, bath-room, and closets are properly cleaned and ventilated, and that no dirt or offensive matter of any kind is allowed to remain in any of the before-mentioned places.

(10) She is not to admit anyone as an in-patient into her ward without the necessary admission order from the Resident Officer or Secretary.

(11) She is to be responsible that the rules for patients are strictly observed, and to report at once to the Lady Superintendent any breach of them.

(12) She shall draw up daily, and have ready for collection at 4 P.M., a list of the diets ordered for her ward for the following day. She is to see that the diets are of the right quality and quantity and properly cooked, and that the food and the wines and other liquors are punctually administered in the appointed quantities.

(13) She is to see that such articles of food as may not be required are returned to the kitchen, and that any wines and spirits not used are returned to the Lady Superintendent's office.

(14) She is to have the special care and custody of the medicines and appliances kept in the ward, and is to see that they are used in accordance with the directions of the medical and surgical officers. She is also to see that no medicines or appliances are used without her permission. No remedies are to be employed except with the sanction of the medical or surgical officers.

(15) A Sister in charge of a surgical ward is required to have always in readiness a proper supply of lint, bandages, and other appliances. She is to keep a week's supply in stock, and every Monday at 9 A.M. to submit to the Lady Superintendent a requisition for the different articles and the amount required to replace those used during the week.

(16) A Sister, when necessary, shall personally assist in the nursing of patients as well as superintend the nursing of the ward. She shall pay particular attention to the state and symptoms of the patients, especially those of an uncommon nature, that she may be able to report to the Resident Officer, whom she is to accompany when visiting the patients. If any unusual symptoms occur in a patient, or she is at all in doubt as to her instructions concerning the treatment or medicine, she is to apply at once to the Resident Officer in charge of the case.

(17) She shall attend each physician or surgeon during his visit, but should there be two physicians or two surgeons in the ward at the same time, she is to accompany the physician or surgeon of the day.

(18) In the event of a patient becoming dangerously ill, she is to give notice at once to the Secretary.

(19) Upon the death of any patient, she is to give notice to the Secretary and to deliver to the Lady Superintendent all clothes, money, and valuables in her care, with a list.

(20) No visitor is to be admitted into the ward (except on visiting days) without a permit from one of the resident officers or the Secretary.

(21) She shall read prayers in her ward every evening.

(22) In the event of a Sister having any complaint to make, she is to lay it before the Lady Superintendent.

(23) A Sister is allowed one month's leave during the year, subject to the approval and arrangements of the Lady Superintendent.

(24) A Sister is to give one month's notice in writing to the Council previous to resigning her appointment, and is to be subject to removal on a like notice from the Council.

REMARKS.

1.—The wards are placed under the direction of the Sisters, subject to the directions of the medical officers, and to the inspection and observation of the Council, the Weekly Board, and the Medical Committee.

2.—The wards are to be kept well ventilated, clean, quiet, and free from noise of every kind ; the atmosphere is to be kept pure and temperate. No loud talking or conversation is to be allowed.

3.—No boxes, baskets, or wooden packages are to be brought into the wards, and all parcels, whether containing linen or other articles, are to be opened in the presence of the Sister of the ward.

4.—The patients are to be in bed by 8 o'clock at night, and those who are convalescent are to rise at 6 o'clock in the morning.

5.—No fires in the wards, excepting such as are required all night, are to be supplied with fuel after 5 o'clock, or to be kept in after 8 o'clock.

(H.)

REORGANISATION OF THE ITALIAN CHARITIES.

The Act of 1890 reorganising the Italian Charities, referred to on page 555 of this Volume, will be found in the Appendix to Volume IV. It has had to be transferred there, as room could not be found for it, as originally intended, in the present Volume.

(I.)

ROYAL NATIONAL PENSION FUND FOR NURSES AND HOSPITAL OFFICIALS.

In Appendix E. to Volume I. full particulars will be found of the Royal National Pension Fund for Nurses. As, however, many persons have intimated their intention of taking only those volumes of this book which relate to their special subject—that is to say (1) Asylums, or (2) Hospitals—further and more recent particulars of the Fund are given in the Appendix to Volume IV. together with a copy of the plan upon which hospital and asylum committees and trustees are invited to affiliate with the Pension Fund, and so to secure a pension for all their employés on distinctly favourable terms.



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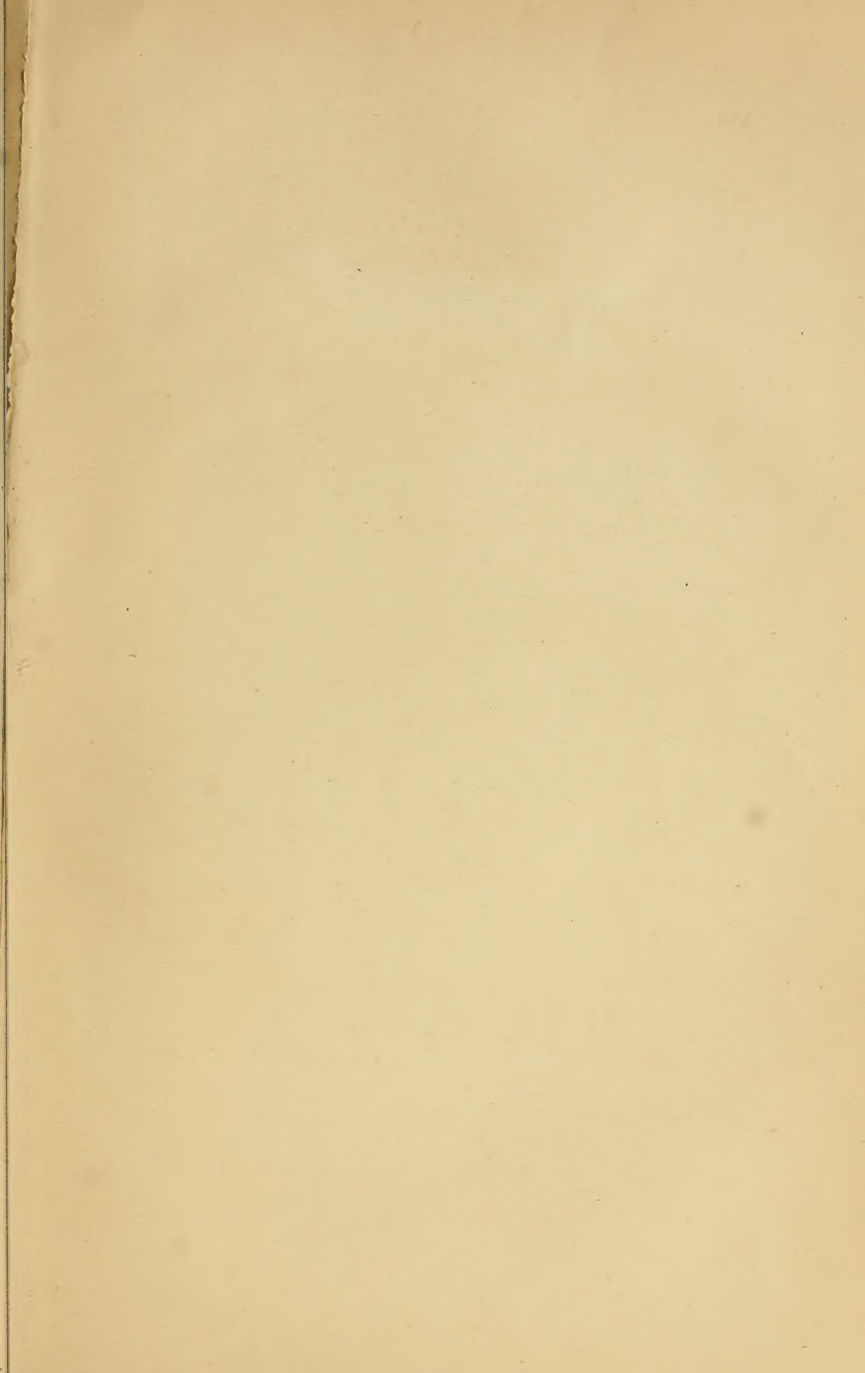
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